

PICTURES OF BIRD LIFE



R. B. LODGE

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PICTURES OF BIRD LIFE

TO THE MEMORY
OF
THE LATE
THOMAS J. MANN
HYDE HALL
SAWBIDGEWORTH
WITHOUT WHOSE
ENCOURAGEMENT AND ASSISTANCE
THIS WORK
WOULD NEVER HAVE BEEN BEGUN.



P. B. Lodge.

KINGFISHER.
(*Alcedo Iridata.*)

PICTURES OF BIRD LIFE.

ON

WOODLAND, MEADOW, MOUNTAIN AND MARSH

BY

R. B. LODGE

MEDALLIST ROYAL PHOTOGRAPHIC SOCIETY

WITH

NUMEROUS COLOUR AND HALF-TONE ILLUSTRATIONS
FROM PHOTOGRAPHS FROM LIFE BY THE AUTHOR

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CONTENTS

CHAPTER		PAGE
I.	PHOTOGRAPHY FOR NATURALISTS	9
II.	AUTOMATIC PHOTOGRAPHY BY ELECTRICITY	24
III.	PHOTOGRAPHIC OUTFIT	36
IV.	BIRD LIFE IN A SUBURBAN PARISH	43
V.	A LINCOLNSHIRE MUD-FLAT	174
VI.	THE SEA-BIRDS OF THE FARNE ISLANDS	186
VII.	THE NORFOLK BROADS	206
VIII.	BIRD LIFE IN DUTCH MARSHES	224
IX.	BIRD LIFE IN THE SPANISH MARISMAS	265
X.	BIRD LIFE IN DENMARK—ON THE FJORD	331
XI.	BIRD LIFE IN DENMARK—IN THE FOREST	347
XII.	A WEEK IN DERBYSHIRE	357

ILLUSTRATIONS IN COLOUR

KINGFISHER	<i>Frontispiece</i>
WHINCHAT	<i>Facing page</i> 64
SPARROW-HAWK 144
BAR-TAILED GODWIT (WINTER PLUMAGE) 178
A PAIR OF KITTIWAKES 194
SPOONBILL AND YOUNG 240
A PAIR OF LITTLE EGRETS NESTING 310
HERRING-GULL 344

ILLUSTRATIONS IN HALF-TONE

PAGE	PAGE
AMBUSH AT SPOONBILL'S NEST 16	DIPPER, NEST OF 364, 365
AUTHOR, THE 280	DUCK, TUFTED 360
AVOCET FEEDING 255	" " NEST OF 361
" NEST OF, DENMARK 339	" WILD, NEST OF 147
" " " SPAIN 325	DUNLINS FEEDING 266
" " " HOLLAND 253	
BEE-EATER, END OF NESTING BURROW 308	EARLY MORNING AT THE NETS 177
" ON TOPMOST TWIG 305	EGG-SHELLS AS BAITS 27
BLACKBIRD, NEST OF 46	EGRETS, LITTLE, AND NEST 287
BLACKCAP, HEN, ON NEST 61	" " IN NESTING COLONY 285, 289
BRAY TAKING BIRDS OUT OF FLIGHT-NET 180	EIDER SITTING 199
BUNTING, COMMON 333	
" REED-, AND NEST 105	FLAMINGOES, DISTANT VIEW OF 330
" " COCK 222	FLYCATCHER, SPOTTED, AND NEST 87
" " HEN 102	" " SITTING 84
BUZZARD, NEST OF 353	
CAMERA HIDDEN IN HEDGEROW 27	GIVING A BACK UP A TREE 351
CHAFFINCH, COCK 98	GODWIT, BAR-TAILED, WINTER PLUMAGE 175
" HEN, AND NEST 97	" BLACK-TAILED, AND NEST 341
CHIFF-CHAFF, NEST OF 367	GOLDFINCH AND NEST 101
CLIMBING TO ROOK'S NEST 41	GOSHAWK, NEST OF 355
COOT, NEST OF 358	GREBE, GREAT CRESTED, NEST OF 249
CORMORANT 202	" LITTLE 172
CORMORANTS SITTING 201, 203	" " FEEDING YOUNG 173
CROW, CARRION-, NEST OF 113	" " ON FLOATING NEST 169
CUCKOO, YOUNG, FED BY HEDGE- SPARROW 134, 135	GREENFINCH, NEST OF 94
" " IN HEDGE-SPAR- ROW'S NEST 133	GUILLEMOTS AND KITTIWAKES 190
CURLEW 185	" ON THE PINNACLES 191
DIAGRAM OF ELECTRIC TRAP CONNECTIONS 28	GULL, BLACK-HEADED, AND NEST 247
	" COMMON, NEST OF 345
	" LESSER BLACK-BACKED 197

Illustrations in Half-tone

7

	PAGE		PAGE
GULL, LESSER BLACK-BACKED, NEST OF	196	NIGHTINGALE TAKING MEAL-WORM	32
" " " " YOUNG, CAUGHT	183	NIGHTJAR AND YOUNG	126
" " " " IN NET	183	" " " " NEST OF	125
GUN CAMERA IN BROADS	13	" " " " ON UPPER BRANCH	122
		NIGHTJARS, YOUNG	129
 HARRIER, MARSH-, NEST OF	239	 OWL, BARN-	138
" " " " MONTAGUE'S, NEST OF	211	" " " " BONES FROM CASTINGS	141
HAWFINCH, NEST OF	99	" " " " CASTINGS	140
HERON, BUFF-BACKED	292	" " " " YOUNG, IN DOWN	137
" " " " AND NEST	297	" " " " LITTLE	282
" " " " NIGHT-	295	" " " " LONG-EARED	219
" " " " NEST OF	301	" " " " SHORT-EARED	213
" " " " ON NEST	145	" " " " EAR OF	217
" " " " PURPLE, AUTOMATIC PHOTO OF	234	" " " " NEST OF	215
" " " " NEST OF, HOLLAND	237	" " " " TAWNY	142
" " " " " SPAIN	283	OYSTER-CATCHER	223
" " " " " YOUNG	235	" " " " NEST OF	200
" " " " RICHMOND PARK	146	 IBIS, GLOSSY, AND NEST	291
		PARTRIDGE, NEST OF	152
JACKDAW, NEST OF	110	PHEASANT, HEN, SITTING	153
		" " " " NEST OF	154
KESTREL AND NEST	143	PHOTOGRAPHING NEST UP TREE	10
KINGFISHER ON WATER-HEN'S NEST	130	PINNACLES, THE	189
KITE, NEST AND YOUNG	271	PINTAIL, NEST OF	338
" " " " OF	268	PIPIT, MEADOW-, NEST OF	78
" " " " BLACK, NEST OF	273	" " " " , TREE, NEST OF	79
KITTIWAKE ON NEST	193	PLOVER, RINGED, AT ENFIELD SEWAGE-FARM	165
LAPWING	160	PLOVERS, GREY	275
" " " " AUTOMATIC PHOTO OF	25	PRATINCOLE	309
" " " " NEST OF	161	PUFFIN, NESTLING	188
" " " " SITTING	162	PUFFIN'S BURROW	195
" " " " YOUNG, CROUCHING	163	PUFFINS	194
MARTIN, HOUSE-, AND NEST	92	RAVEN, NEST OF	304
" " " " SITTING	53	REDBREAST, ROBIN	49
		" " " " NEST OF	50
NIGHTINGALE AND NEST	52	RESTART AND NEST	48
" " " " SITTING	53	ROOK AND NEST	117
		" " " " NEST OF	114
		RUFF	343

	PAGE		PAGE
SANDPIPER, COMMON, NEST OF	363	TERN, LESSER, NEST OF	261
SETTING PHOTO-TRAP	30	„ SANDWICH, NESTS OF	337
SHRIKE, GREY	328	„ WHISKERED	321
„ RED-BACKED, COCK	80	THRUSH, MISSEL-, NEST OF	43
„ „ HEN	80	„ SONG-, NEST OF	44
„ „ NEST OF	83	„ „ YOUNG	45
„ WOODCHAT-	265	TIT, BEARDED, AND NEST	209
SKYLARK, NEST OF	118	„ BLUE, AND STUMP WITH NEST	69
„ YOUNG	121	„ LONG-TAILED, NEST OF	72
SPARROW, HEDGE-, NEST OF	67	„ „ „ HALF-MADE	73
SPONIBILL,	24	„ MARSH-, NEST OF	70
„ NEST OF	233	TURTLE-DOVE AND NEST	151
„ NESTS	284		
„ YOUNG	230		
SPONIBILLS, YOUNG	228	WADING IN BROADS	208
STARLING (2 POSITIONS)	106	„ IN SPANISH LAGOON	39
„ NEST OF	109	WAGTAIL, PIED	74
STILT,	278	„ „ NEST AND YOUNG	75
„ (3 FEEDING)	312	„ „ YELLOW	76
„ NEST IN WATER	315	„ „ AND NEST	77
„ „ ON MUD	318	WARBLER, GARDEN-, NEST OF	59
STORK, BLACK, NEST OF	349, 350	„ „ SITTING	58
„ WHITE, AND YOUNG	259	„ GREAT REED-, AND NEST	227
„ „ GREETINGS	251	„ „ „ YOUNG	226
„ „ IN DENMARK	331	„ REED-, NEST OF	221
„ „ IN SEVILLE	277	„ „ SITTING	220
„ „ KLAPPERING	251	„ SEDGE-, AND NEST	66
„ „ ON GROUND	332	„ „ „ FEEDING YOUNG	65
„ „ ON NEST	225	WATER-HEN AND NEST	157
STOWING CAMERAS IN BOAT	335	WHINCHAT, COCK	34
SWALLOW	88	„ „ NEST OF	47
„ NEST OF	91	WHITETHROAT, GREATER,	54
		„ „ (3 POSITIONS)	56
		„ „ NEST OF	55
TERN, BLACK, NEST OF, HOLLAND	240	„ LESSER, YOUNG	57
„ „ „ SPAIN	323	WILLOW-WREN AND NEST	63
„ „ (2 POSITIONS)	243	„ „ AT NEST	64
„ COMMON, AND NEST	245	WOOD-PIGEON, NEST OF	148

PICTURES OF BIRD LIFE

CHAPTER I

Photography for Naturalists

There are so many gentlemen who have leisure and means, that we beg to suggest that those who have the opportunity should make it their pleasure and business to visit some of these orangs in their tropical forests. *Let them for once leave the gun and rifle at home, and take only the telescope and field-glass, the sketch-book and pencil.* Naturalists and anatomists know quite enough of the structure, as compared with man, of the orang, gorilla, and chimpanzee. There are skeletons and skins in abundance of all these in England, but nobody, not even Professor Owen himself, can tell the social manners and customs of an animal from his skeleton and the structure of his muscles. What is wanted now to fill up this vacant gap is an account of the home life of the great apes. *This is not to be obtained by shooting and persecuting them, but by meeting them as it were in a friendly way.*

THUS wrote Frank Buckland, now many years ago, respecting some specimen of orang-otang which had just reached England. If he had lived in these days of photography, I feel positive he would have included the camera and tele-photographic lens in his suggested outfit.

At any rate, his condemnation of mere killing is worthy of consideration. There is so much slaughter of wild animal life going on all over the world, that at the present rate of destruction there will soon be nothing left to kill.

But before the coming extermination the substitution

of the camera for more deadly weapons opens up a novel form of sport to every lover of wild life,—one no less fascinating and infinitely more difficult than that followed



PHOTOGRAPHING NEST UP A TREE WITH AN IMPROVISED
TRIPOD MADE OF YOUNG TREES.

by the wielder of gun and rifle: a sport, too, which has the immense advantage of in no way diminishing the fast dwindling number of our *ferae naturae*, and one which at

the same time produces permanent and truthful records of the countless beautiful forms around us.

In the whole range of photographic possibilities, wide as it is, where can any subject be found more worthy of one's best energies and keenest enthusiasm than the portrayal of the inner life, haunts, and habits of the wild free inhabitants of woodland, meadow, mountain, and marsh?

As Buckland says, there are so many men who have the time and the money, and there must be so many who badly want a new sensation, and some definite object in life, that I wonder it has never struck some of them what a good time they could have. Hundreds have yachts lying idle half the year, and find the time go slowly for want of an occupation. Most sportsmen have at least a liking for natural history and collecting, which only wants encouraging to turn them into enthusiasts. Let them start an expedition photographic and collecting too, if they like—with some definite object in view: some long-debated point in natural history to clear up, or some newly discovered fact to prove more convincingly by means of photographs, or some fast-disappearing species to be photographed before it finally vanishes from off the face of the earth.

The dwindling fauna of South Africa badly needs a photographic historian. That this would not be an impossible task Lord Delamere's interesting series of photographs is conclusive proof. It is a pity that there are not more such expeditions.

Uganda, from all accounts, would be a paradise for a

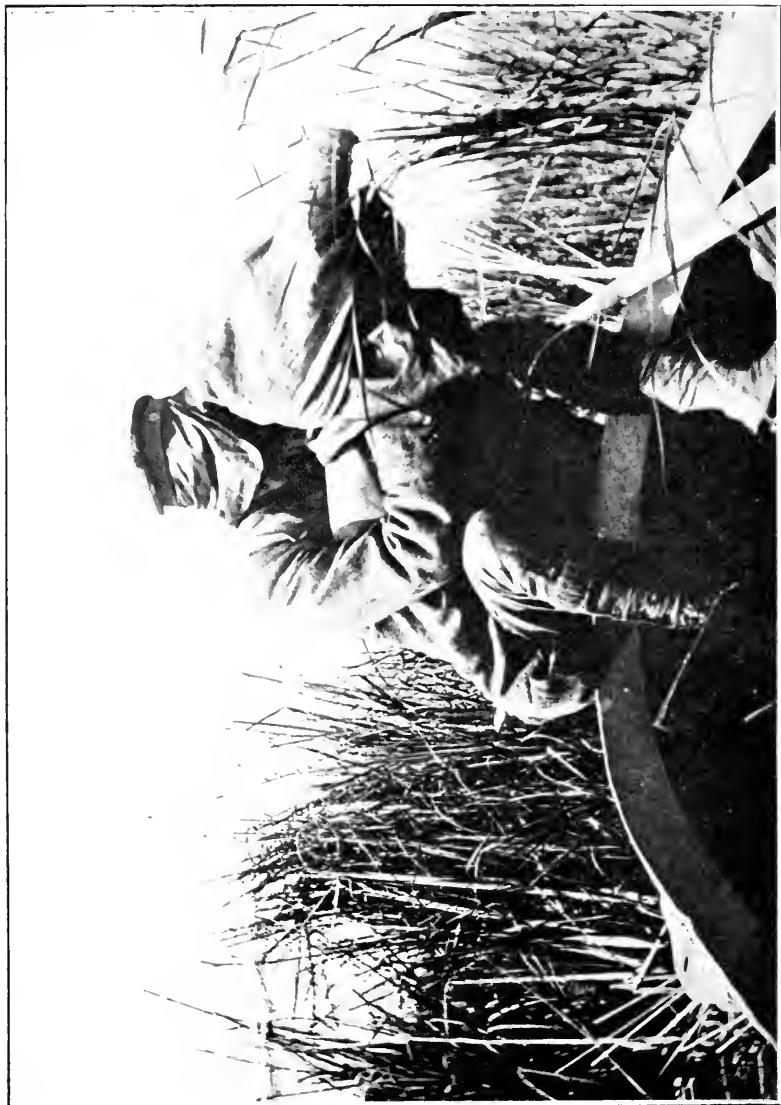
photographic naturalist, if it could be worked at once, before the abundance of wild animal life is thinned down to the level of those parts which have been shot over for a longer period.

But going no farther than the confines of Europe—though skins and specimens, both dead and alive, of almost every European species are a drug in the market—there is yet a grand opening for photographs of the most extreme interest.

We know now for certain that the Flamingo does not sit astride of a tall conical mud mound, as depicted in the old books; but a photograph from life of a Flamingo sitting would be worth some labour, and be more convincing than a drawing. The Lammergeyer on its native rocks, the Great Bustard, and the Crane would be fine prizes to strive for. The photographing these “at home” would be ten or twenty times as difficult and a hundred times more interesting than the mere feat of shooting them, and could only be done by the most enthusiastic perseverance and ingenuity.

It would be no work for the ubiquitous hand camera. The whole apparatus, from lens to camera and tripod, would need to be carefully designed for its special purpose, and difficulties, as far as possible, foreseen and guarded against. Some portable form of automatic release, electric or otherwise, might be contrived, combined perhaps on occasion by a flash-lighting contrivance.

The portability of the hand or folding pocket cameras is undoubtedly tempting to the traveller or sportsman already loaded with necessities, and the facility with which



USING GUN CAMERA IN THE BROADS.

one can be carried about at the same time as a gun or rifle, or on horseback or camel-back, often leads to its being included in an outfit, and used for work for which it is absolutely useless. I wonder how many yards of film have been exposed on objects completely out of their range, and developed after returning home, *when it is too late to rectify the mistake*. It cannot be too strongly insisted on that serious work, such as Natural History work is, can only be accomplished by taking trouble and by using proper instruments, even though they are heavy and extremely awkward to carry. I do not deny for a moment that good subjects have been obtained with a pocket camera, but I say unhesitatingly that for every chance of a successful shot the carrier of a pocket camera only misses a hundred for want of a longer focus lens, and in all probability the one solitary opportunity would have had more justice done to it with another instrument.

After ten years' experience I only remember one occasion when a small camera would have been useful, and then, though I could have exposed more plates, I should certainly have been disappointed at the small size of the birds depicted by it.

Suppose for a moment that it had been possible for Messrs. Seebold and Harvie-Brown's expedition to Siberia, Lord Lilford's yachting cruises after birds in the Mediterranean, and the Crown Prince Rudolph's expeditions to the Danube and Palestine to have been accompanied by a competent photographer provided with the modern appliances

which have since been invented, there is no doubt that the value of these expeditions would have been much augmented.

How interesting to future generations of ornithologists to see permanent photographic records of the first recorded nests of the little Stint and Grey Plover, with the birds themselves photographed on or near the nests, as first discovered by Seebold; or some of Wolley's Lapland discoveries! What pictures of the great raptorial birds Prince Rudolph could have obtained if he had had a tele-photo lens while in ambush at their nests!

A most interesting expedition could be made now in pursuit of the Eagles and Vultures of Southern Europe. In Spain alone there are still to be found in the big pine-woods and rugged sierras five different kinds of Eagles and four species of Vulture. Some of these are yearly decreasing in numbers, and in a few more years will be extremely rare. Hungary and the country round the Danube is also particularly rich in raptorial and marsh birds.

But enough has been said to show what a wide opening there is for the photographic naturalist, and what a scope for serious work in a new and practically untrodden field for research.

Unfortunately the field is too big for any man of small means. Unless backed by money, whether his own or provided by employers, no one can hope to do more than pick up a few crumbs here and there in the way of results.

The attempt to obtain photographs of wild and living animals is beset with many difficulties, not the least of which

are the photographic and optical difficulties placed in his way by the limitations of his craft, though some of them are



AMBUSH NEAR SPOONBILL'S NEST, IN WHICH I REMAINED IN
FOUR FEET OF WATER FOR FIVE HOURS.

gradually being removed by fresh discoveries and inventions, such as that of the tele-photo lens.

One of the difficulties is that the small size of most birds

and of many animals renders necessary a very close approach in order to obtain a photograph of a practical size. Against this close approach the extreme timidity of practically the whole animal creation is an almost insuperable barrier. Thus the use of very long-focuss lenses becomes an absolute necessity, and even with the most powerful a small object like a bird must be photographed from a very few yards, or even feet, and the necessary extension of camera becomes exceedingly cumbrous and awkward at such close quarters, and requires, again, a very heavy and rigid tripod to support the weight. Photographing small birds with a camera between three and four feet long on a big tripod resembles shooting Snipe with a Maxim-gun.

By using the tele-photo lens, invented a few years ago by Mr. Dallmeyer, a long-focuss lens and consequent large image may be obtained without the corresponding increase in the length of camera.

But this desirable result is only arrived at by a great loss of rapidity. It is necessary to give a comparatively slow exposure even with the fastest plates obtainable. The longer the extension of camera the bigger the magnification, but the greater the loss of rapidity. I find that a short camera with a more moderate magnification gives a gain in rapidity, and improves the definition and depth of focus, and it is noticeable that my cameras by degrees get shorter and shorter.

The latest step in this direction consists of a short camera carrying a tele-photo lens, and provided with a reflecting focussing device, which is mounted on a light gun-stock,

and can be used like a rifle by resting the elbows on the knees.

Another difficulty is the retiring nature of many birds, which prefer leafy retreats and shady corners embowered in foliage, where the quality of the light is not quick enough for the short exposures which are needed for their active movements and restless behaviour.

For some subjects, such as a bird on its nest, an ordinary lens may be used on a carefully hidden and previously focussed camera, the shutter of which may be manipulated from a distance by means of a string, a long pneumatic tube, or even by electric current. Here great exactitude in focussing is required, and even with the most careful preparations many exposures will be wasted. It is impossible without much "stopping down" to get both sides of a nest in sharp focus on the plate; and unless the bird occupies the exact spot allowed for it, it will be more or less out of focus. It is generally safest to focus the nearest edge of the nest, as a bird will, as a rule, prefer to face any object of which she has any suspicion. She will also prefer to sit head to wind. Then, not only must the camera be most carefully concealed, but the operator himself must also be completely out of sight. Then, when, after many hours of waiting, the desired exposure has been made, there is the necessity for him to show himself in order to change the plate if another chance is wanted, and it is never safe to trust to one plate in this work. This is not only a great drawback, but causes much loss of time.

When hidden up with the camera, as when using the tele-photo lens, you may sometimes expose a dozen plates one after the other without having to alarm the bird by betraying your hiding-place, and there is besides more choice of pose, and the bird's movements can be followed without your being restricted to one particular spot, and when there is time the focus can be obtained with more certainty. Too often, however, the bird is on the move, and the time for consideration is of the shortest.

On these occasions self-effacement must be studied as a fine art. All animals do their best to shun the attention of mankind, for very excellent reasons of their own: and the photographic enthusiast, though he may overflow with benevolence towards the whole animal creation, is viewed with just as much suspicion as the prowling gunner—with more, in fact, inasmuch as his weapon is so much more bulky and dangerous in appearance.

It is quite possible, however, to get gradually on familiar terms with birds individually, and to gain their confidence, if you can spare time to spend a day or two at their house—I should say, their nest. I have succeeded in making friends with several pairs of Nightingales, Whinchats, Whitethroats, and other timid birds. By constantly visiting them and by moving quietly and gently, they soon lay aside all fear, and appear to recognise one as a friend of the family, who may safely be trusted not to betray the confidence placed in his good faith. When they have once arrived at this satisfactory state of mind, the chief difficulties are removed, and work

may be done at close quarters without the usual precautions as to hiding.

The most portable disguise for general use among the greenery of hedges, woods, and reeds is a large piece of green fabric. By having it lined with a yellowish brown, the reverse side would be useful on sand, shingle, and open moors. It may nearly always be supplemented with advantage by cut pieces of bracken, leafy branches, reeds, or whatever is suitable and appropriate for the locality.

In such a difficult class of work the failures and disappointments are many and bitter, and success always very uncertain.

I have gone abroad for a week after a particular bird and succeeded in exposing two plates at short range, only to find on my return home that they were both hopelessly fogged. I have ridden miles, and carried a heavy camera, only to find the nest deserted or pulled out by boys, or waded nearly up to my neck in stagnant water for half a day to no purpose.

One day I cycled thirty-five miles, carrying a camera, after a particular nest, and had the pleasure of riding the thirty-five miles home again without having unpacked the camera seventy miles for nothing, not having succeeded in finding the wished-for object—and have often and often been out every day for a fortnight and more without having exposed a plate. And here let me say that carrying a whole-plate camera and spare lenses, and perhaps another camera as well, with tele-photo lens and all belongings, over hedge and ditch, ploughed field and marsh,

varied perhaps by climbing to the top of seven or eight big trees, is very hard work under a hot sun such hard work that nobody but an enthusiast would ever tackle it twice.

The long waiting at nests is generally supposed to be very tedious sort of work : but this is a great mistake. There is always something to be seen of exceeding interest. If it were possible to photograph birds as quickly and as easily as it is to shoot them, the photographer would know no more about them and their habits than the man who shoots a bird the instant he sees it—*if he can*. It is during this waiting that one learns.

The mere pleasure of seeing a rare bird at close quarters is alone sufficient compensation for any amount of waiting, and there is the chance of a successful photograph thrown in, as it were: there is also a great probability of seeing all sorts of unexpected incidents and details of wild life. The fact is, the way to see Nature face to face is not to tramp about either with or without a gun, but to sit in a ditch or up a tree, or burrow into a thick hedge, and stop there half a day, or, better still, a whole day. You will see much more than when walking about, and those birds you do see will be unconscious of danger instead of fleeing for their lives.

The great thing is not to move : it is the movement which frightens or perhaps calls attention to your presence. By merely standing perfectly still, it is quite possible to have birds and animals all round you, taking no more notice than if you were a post or tree. A good plan is to cover up

your face, and to wear dirty old dog-skin gloves that have seen plenty of hard wear. You can then move your hands slowly and raise a field-glass to your eyes, when any movement of the bare hands would be fatal. If anything suddenly approaches close to you, half close the eyes and look through the half-closed lids. If you must move—and after a time it becomes impossible to remain motionless—do so slowly and cautiously, watching for a suitable opportunity.

Coughing, sneezing, and smoking must be strictly forbidden. I have myself given up smoking altogether, as being the easiest way out of the difficulty; otherwise, while waiting about, there was always present the longing for a smoke, all the stronger for being forbidden.

Also, and most important of all, go alone, whenever practicable. One man working on the lines suggested will see four times as much as two. It is very often impossible to do this. In strange localities, and especially abroad, it will often be necessary to have a guide, or boatman, or keeper; and on such occasions the advantage of being taken straight to the birds saves so much time wandering about in a strange country as to outweigh any disadvantages.

Away from home, too, much more weight has to be carried, so as to be prepared for anything that may turn up—spare plates, lenses, etc., generally more than it is possible to carry single-handed. Even then it is as well, whenever after anything special, to leave your man at a little distance, and go on alone. I try always to plan out beforehand each day's work; but one must always be

prepared to alter or modify, or even completely reverse, all one's plans at a moment's notice, for the least thing may render them all useless.

This branch of photography will be found of most absorbing interest, provided one has, to start with, the necessary enthusiasm, without which the many failures and the constant disappointments would soon prove overwhelming.

The worst of it is, that when a good photograph of any bird has been obtained—as good, that is, as can be reasonably expected or even when it is the very best that can be possibly done by photography, it falls so lamentably short of the beauty of the original.

CHAPTER II

Automatic Photography by Electricity



SPOONBILL (*Platalea leucorodia*).

SINCE writing the foregoing chapter, the idea of the automatic electric release therein suggested has become an accomplished fact.

In 1901 I devised an elec-

tric shutter to be actuated automatically by the pressure of a bird's foot, and in the chapter dealing with Bird Life in Dutch Marshes will be found an account of how it was used successfully in portraying an unconscious Purple Heron in the very act of stepping on to its nest. This was in the midst of a certain "meer," which must remain nameless, where these Herons, so common on the Continent, but so extremely

rare on our side of the Channel, nest in great numbers. One advantage in this very interesting method of photo-trapping is that it enables one to work with several cameras, as is evidenced by the fact that, at the very time the Purple Heron was completing the electric circuit, and thereby automatically photographing itself, I was hard at work a good mile away, making exposure after exposure at adult Spoonbills standing in their nest and surrounded by their half-fledged family.

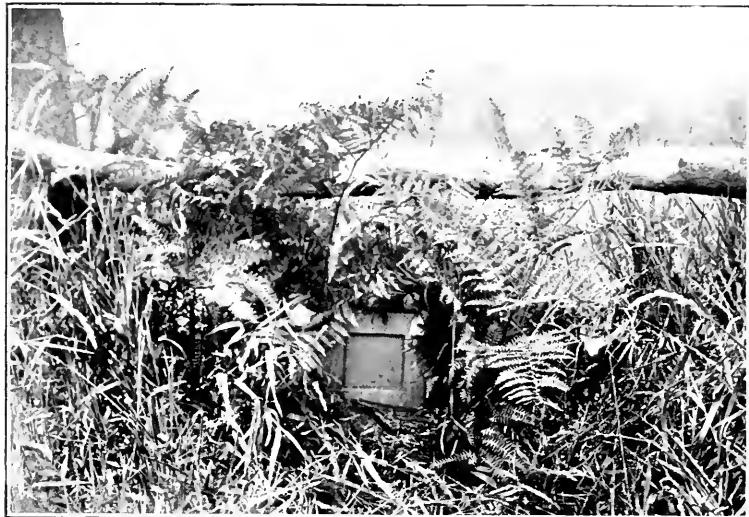


LAPWING SITTING. AUTOMATICALLY PHOTOGRAPHED BY ELECTRICITY.

Truly this was a red-letter day, thus to obtain photographs of these two fine birds, so interesting and so desirable in every way in the eyes of an ornithologist, and yet so extremely difficult, owing to their excessive timidity as well as to their love of remote and unapproachable localities!

Many have been the attempts, carefully planned and patiently carried out, but all in vain, to circumvent this timidity and photograph them "at home"—attempts begun in 1895, and only successfully ended in 1901.

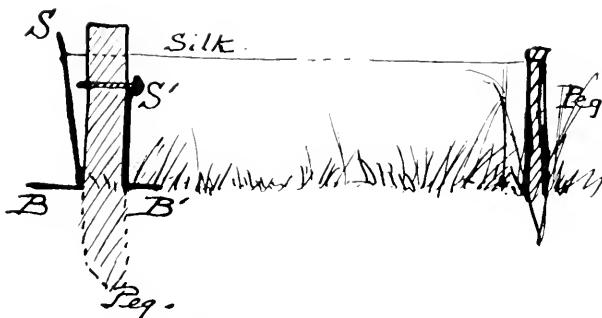
It would, however, have been the height of rashness to rush over to Holland to use an untried and untested apparatus, especially one so delicate in manipulation. A whole week was first spent at a Lapwing's nest not far from my house. Day after day the trap was carefully set, and watched throughout the whole day from the shelter of a thick hedge half-way across the next field. Squatting in this prickly retreat, the birds could be watched through the field-glass, and their actions and behaviour noted. Each day one or other of the birds went on to the eggs, and, duly setting the current in action, exposed the plate : but it was not until the end of the week that a successful photograph was obtained. First one slight alteration or modification became necessary, and then another. The shutter made for some time a slight noise—very slight it was, but quite enough to cause the mother bird to spring up and completely blur the photograph before the exposure was completed. Since then some considerable improvements have been effected, and to complete the circuit a bird now has only to touch an invisible silk thread. This can be made to match the place—green over grass, yellow over sand, and so on—and can be so delicately set that a Butterfly, settling on it, would set the battery at work. I have released the shutter by dropping a piece of thin newspaper an inch square on to this thread. Another difficulty had to be got over at the last moment. The Lapwing sat on the release so long that the battery, kept in action all the time, ran out. It then became necessary to work out an automatic "cut off," which would prevent this waste of battery action, however long the pressure was maintained.



CAMERA HIDDEN IN HEDGEROW. TRAP SET FOR A JACKDAW, BAITED WITH EGGS. (FRONT OF CAMERA AND SHUTTER PAINTED GRASS-GREEN.)



EGG-SHELLS SET AS BAIT FOR CROWS OR JACKDAWS. PLATE EXPOSED BY FINGER TOUCHING GREEN SILK STRETCHED OVER EGGS.



S, Spring; *S'*, Screw,—both connected with insulated wires to battery and electro-magnet of shutter. The slightest touch on silk causes *S* to touch *S'*, which completes the electric circuit, and causes the shutter to open and shut, whereby the plate is exposed.

The camera, it is needless to say, must be most carefully concealed; it is, in fact, upon the thorough concealment that eventual success depends, for very many birds will not approach their nest if their suspicions are too much aroused, but will desert their eggs altogether, and some birds will even desert their young ones. I have known Turtle-doves to do so; but this is, I imagine, a very extreme case.

When a nest is, like a Lapwing's, placed in the middle of a field on the bare ground, it is not an easy task to so disguise the camera as not to alarm the parent birds. It is impossible, of course, to so conceal it as to leave nothing suspicious; there must be some lump which did not exist before, however you may attempt to do away with it. And it is just here that human ingenuity comes into play. It is, for instance, a capital plan to gradually accustom the birds to this necessary lump before they begin to sit, by piling up two or three clods of earth some yards away, and gradually decreasing the distance, so that they become familiarised with its appearance.

Then, when you actually commence operations, place the camera in position at the right distance, taking advantage, if possible, of any natural mound or rise of ground, but keeping the light behind the camera. As you may take it for granted that a Lapwing will never come on at first under two hours (it will much more likely be four), it becomes necessary to make a mental calculation as to the position of the sun in two or four hours' time, and allow accordingly. This is really an important point. Then focussing must be most carefully done; and those who have never experienced the delights of lying down flat in a muddy field, and focussing a camera on the ground, will be considerably surprised at the difficulty involved and the time taken up by this essential operation. The lower the camera is, the more difficult it becomes to focus sharply the foreground grass as well as the exact spot where the bird is expected, and the swing-back must be used to the very fullest possible extent. Then the shutter is set, and the wires connected with the dry battery, a proper circuit being arranged with the two terminals of the shutter and the release on the nest, which only wants completion by the pressure of the bird itself. The wires, insulated with green silk or gutta-percha, must be hidden in the grass or buried, the battery hidden with the camera by being covered with a brown or green cloth, and then artistically disguised with earth, stones, thistles, dry cow-dung, or anything there happens to be around, and at the last moment, not before, the slide withdrawn. It is a good plan to shield the lens with a cap until everything is completed; for on several occasions I have gone through all these operations, generally an hour's



SETTING PHOTO-TRAP. EXPOSURE MADE BY TOUCHING SILK THREAD.

work, and then, inadvertently releasing the shutter, have wasted a plate, and had to commence again *de novo*. If tall grasses or plants come into undue prominence, cut them down at an early stage of the proceedings, and make sure that none of your disguisements come in front of the lens, and that no wind which may spring up can blow grasses or leaves in front of it after you have gone.

Whatever you do, avoid, if possible, any field tenanted by sheep, horses, or cattle. I have had a pony come smelling around my carefully arranged wires, with a pair of Lapwings dancing about in front of its nose, until I have had to jump up and drive it off to save a wasted plate. Once, when depending upon a string from a hiding-place, a cow swallowed several yards of it, in spite of my frantic efforts to frighten her away.

and sheep have broken it and wasted plates no end. On another occasion, when baiting for Hooded Crows with a dead rabbit, my bait was discovered by a big black dog : and though, being pegged down, he could not take it away, he released the shutter and left a photograph of his mongrel carcass instead of the desired Hoodie. All of which things are aggravating to one's patience and waste a lot of valuable time.

The best place for the shutter is behind the lens, for many reasons : but some birds cannot stand the uncanny look of the single eye looking at them. I have watched a Lapwing go up to the camera, look into the lens, give a bob or two, as if to bow to it, and then settle on her eggs. But it seems fatal to success with any of the Crow family. Jackdaws I have tried, as well as Hoodie Crows, with rabbits, eggs, and a variety of attractions for the corvine taste, when the camera has been perfectly invisible, but the lens looking out (although on one occasion I made a tunnel about a foot long in front of it) was always detected sooner or later. I watched a Jackdaw once walk round with every precaution, then hurry forward, and raise his beak to dig at two hen's eggs temptingly displayed, when the tail of his eye caught sight of the lens, and that was quite sufficient. That Jack departed eggless, but un-photographed, leaving me very wroth, but at the same time amused at his hurried and undignified departure.

There is a good deal of interest in this photo-trapping, and not a little uncertainty. You may find you have caught nothing, or that you have got something you never expected, more especially when depending upon a bait to attract to

the desired spot. Meal-worms are the great *bonne-bouche* for Nightingales; but Robins are equally fond of them; and as these latter are much more numerous and twice as bold, the chances are that some hungry Robin will discover the attractive morsel first and promptly annex it. And if a Robin once finds out that you are putting out meal-worms, it will come again and again, and seize them as fast as you can put them out, without waiting till your back is turned; so that, unless you want to be ruined in plates, you will have to give it up and select another place. Even at a nest you may perhaps get another than the rightful owner thereof, and the result may possibly be more valuable; for the negative of an egg-stealing Crow caught in *flagrante delicto*, or of a Cuckoo visiting some small bird's nest with felonious intent, would be of extreme interest and value. There is, in fact, all the uncertainty of regular trapping without the element of cruelty which is almost unavoidable.



NIGHTINGALE TAKING MEAL-WORM.

Instead of the long hours of hopeless suffering and intolerable agony, only to end in a cruel death, the bird or animal, by simply touching a thread, has re-

corded its presence and appearance on a sensitive plate without knowing that anything has happened. A permanent record of the bird's appearance has been obtained without any sacrifice of life or the suffering of any pain.

The varied nature of the positions selected by birds makes it impossible to depend upon any one particular method of using or releasing the automatic photo-trap. What is possible on the ground, for instance, is not by any means practicable up a tree: and there is plenty of occasion for all one's resource and ingenuity. In the case of water-birds it should be possible, on a small and narrow stream, to stretch a silk thread from bank to bank just above the surface of the water, so that any swimming bird would touch it in passing and complete the electric circuit. There is, in fact, no end to the devices which may be made use of in this branch of work. It is hardly necessary to say that the greater one's knowledge of the habits of birds the greater chance there is of success.

It is quite possible to induce some birds to perch upon any twig you may select, or to put a twig or branch on purpose for them to sit on, with every chance of their acceptance of your invitation. Whinchats, Butcher-birds, and Spotted Flycatchers, for instance, are fairly easy to manage in this respect, and I have succeeded in persuading Nightingales to settle where I wished. Some species seem to be gifted with abnormal acuteness of sense. Water-hens are as difficult as any birds I know to circumvent. When you are expecting them to approach by water, they are in

COCK WHINCHAT (*Pratincola rubetra*).

bird and reeds reflected in the glassy surface, and the reflections just broken by the ripple caused by its movements. What hours I have spent in the vain endeavour to portray such a simple and common scene as this, which may be enjoyed in almost every pond in the kingdom! It is necessary for success to get the bird in a patch of water reflecting the sky, and it is such a skulker that it seems to know what you want, and to be persistent in keeping to the reflection of the bank and trees, where its dusky plumage does not get the contrast necessary for a good photograph in the short exposure which alone you are enabled to give.

In watching the ways of Nature's children, the artistic beauty of the unconscious pictures they make amid the scenes of their daily life is, I think, the greatest inducement to the desire of obtaining pictorial records of their

all probability on the ground somewhere behind your hiding-place, perfectly aware of your presence, and taking stock of all your proceedings.

There are few scenes in bird life more satisfying in an artistic sense than the picture of a Water-hen lazily paddling among the reeds, nodding its head and flirting its tail at every stroke, so as to display the white under-tail coverts.

actions. The artist will, in fact, derive as much pleasure as the naturalist, and the sensations of each will be so blended as to make any attempt to analyse them or to differentiate one from the other a matter of impossibility.

CHAPTER III

Photographic Outfit

As to the photographic outfit, it may perhaps be useful if I describe my own kit, which is now the result of about ten years' experience.

The lenses are the most important as well as the most expensive items, several of them being necessary. First comes the Tele-photo lens before mentioned. This is a difficult—in fact, a very difficult—lens to work with; but it is an absolute necessity for an ornithologist. Mine is the simple form, as first brought out by the inventor, Mr. Dallmeyer, now, I believe, not made, as it has been superseded by the later form with a Portrait lens and a Negative lens attached to the back. With this lens the majority of the birds as depicted in this volume have been photographed. Then I use two Optimus lenses, a R.R. of $10\frac{1}{2}$ -inch focus and a Euryoscope of $8\frac{1}{2}$ inch: with these two nearly all the nests have been photographed. Lately I have procured a Dallmeyer Stigmatic of 7-inch focus. This is a most useful lens, and I wish I had had it sooner; in confined situations a short-focus lens is often a necessity, and in dozens of cases would have saved me much trouble and given a better result.

The cameras consist of a whole-plate Optimus camera, on an Ashford stand—the best, the lightest, and the strongest of all stands. (I have stood on mine before now.)

I have also a quarter-plate reflecting camera, provided with a focussing eye-piece and mirror, through which I can look horizontally on to the focussing-glass, which gives the exact image seen through the lens itself. This takes the Tele-photo lens, and also the Euryscope and the Stigmatic. Here, I may say, all my things are interchangeable—all the cameras go on the same stand, all the lenses go in all the cameras, etc., etc. Instead of slides or changing-boxes there is a single slide, with a leather changing-sleeve attached thereto, which holds a box of plates, and when they are used any number of fresh boxes can be used one by one. This camera, besides fixing on to the Ashford stand, also screws on to a gun-stock made of willow, so that I can use it from the shoulder like a gun, or rest it on my knee like a rifle, or with the Euryscope lens it can be used as an ordinary reflecting hand camera.

Then there is the electric camera described in Chapter II. This is a half-plate, rather solidly made, which takes all lenses, and is provided with metal dark-slides and the electric shutter behind lens of my own design, made by Messrs. Dallmeyer.

(This camera has since become unusable, having suffered too much from exposure to damp by being left in wet ditches and similar places all night, so as to be ready for the proverbial early bird in the morning. I now use a

5×4 camera, fitted with an old focal plane shutter, which, however, works now before the lens. It takes a single lens of 14-inch focus, besides the R.R., Euryscope, and Stigmatic, and has a changing-box with twelve plates.)

As for plates, they are all good, and I firmly believe in everybody sticking to one brand and knowing what it will do by experience. For tele-photo work the very fastest plates are hardly fast enough sometimes. Cadett Lighting and Spectrum and Imperial flash-light plates have been used, and are all of them very good. For nests I prefer a plate of ordinary speed, and have found Imperial ordinary plates most excellent. Except for working in a very high wind, I would not ask for anything better: but on such occasions their special-rapid plate is perhaps to be preferred. Another beautifully clean and brilliant plate for nest work is the Warwick instantaneous plate. For developers I believe in old-fashioned pyro, with soda as accelerator. But in these matters we all have our own opinions and prejudices, and there is plenty of room for difference of opinion.

Then, besides the purely photographic outfit, a good field-glass is a *sine quâ non*. With such a load of necessary tools to be carried about, every ounce of weight is a matter of importance, and before the introduction of the prismatic glasses a powerful glass was a serious addition to the kit, already over-heavy. Now a glass as powerful as a telescope weighs so little as to be unnoticed. The innate timidity and incessant watchfulness displayed by each and every member of the animal creation make some



WADING IN SPANISH LAGOON.

assistance to the sight absolutely necessary, and an ordinary field-glass is an immense improvement on the naked eye; but the new prismatic glasses present the object with such clearness and vivid distinctness that they are as superior to the old-fashioned glass as that was to the unassisted eyesight, while being half the size and half the weight. They also give a much larger field of view. Looking at a bird forty or fifty yards away with a Goerz glass, medium power, I have been fairly astonished at the brilliancy and microscopic sharpness rendered by it. Not only can you distinguish clearly the delicate markings of the plumage, but the very fibre of its feathers and the twinkle of its eye can be seen as distinctly as if you were watching a bird in a cage close at hand. In fact, you can see it much more distinctly, for the glass appears to give a strong stereoscopic effect, so that the bird seems to stand out from its surroundings in a most wonderful manner.

If much of marsh work be attempted—and it is, I think, the most fascinating—then wading-trousers are necessary. They should come well up to the shoulders, like those which are worn by salmon-fishers, as the water is nearly always very deep and the bottom soft. The camera then can be manipulated in four and five feet of water. Nothing is more aggravating than the attempt to use a camera on its tripod on a small boat or narrow punt. As a rule it is absolutely impossible to give anything but an instantaneous exposure, and for photographing nests instantaneous exposures are no good. A small stop, a moderately fast plate, and



CLIMBING TO A ROOK'S NEST.

a prolonged exposure is the rule, except in a very few exceptional instances.

If I had been born a bird, I should have liked to have been web-footed and to have lived in a marsh. Nothing gives me greater pleasure than working in such situations, surrounded on all sides by a waving sea of fresh green reeds. As I sit trying to collect my scattered thoughts, distracted by the usual uncouth noises of a suburban street, I long for the silent reed-bed and the pleasant days I have spent wading in remote and watery wildernesses alone with the birds, and wonder whether I shall ever enjoy the like again.

For rock work ropes and a crowbar will be wanted. It is one thing, however, going down a rope, and another to get a decent photograph when you are down.

For tree-climbing a short length of rope is sometimes very useful, and so are, on occasions, climbing-irons. They want some practice, however, and are awkward things, and, in fact, rather dangerous, until you are used to them, when they will no doubt enable you to climb trees otherwise impracticable. I am not a good climber, but I have generally managed to do without their assistance. They add considerably to the load to be carried, and are best left at home in reserve, unless you know they are likely to be wanted.

CHAPTER IV

Bird Life in a Suburban Parish

FORTUNATE indeed it is for English naturalists that the migratory impulse among birds induces so many species to visit this country. Our resident birds are but few, and are in too many instances dwindling in numbers, or



NEST OF MISSEL-THRUSH (*Turdus viscivorus*).



NEST OF SONG-THRUSH (*Turdus naumanni*).

even gradually becoming extinct; and if it were not for the constant passing to and fro of the summer and winter migrants, our fields and woods would be almost devoid of life.

More especially is the fact to be appreciated by suburban observers. Dwellers in the country, and more particularly near the coast, have the regular influx of vast flocks of wild-fowl to take the place of the departing summer visitors. Around London, however, there is no such arrival to watch

for, and comparatively few birds are to be seen until the advent of spring.

Then, as soon as the first Chiff-chaff, braving the cold and boisterous winds of March, is heard in the tree-tops, there is the certainty that our welcome summer friends will soon be here, and that thousands of tiny voyagers have already started on their long journey. Leaving behind



YOUNG THRUSHES (*Turdus migratorius*).

them the land of cactus, palm, and aloe, they speed ever northwards, either across the Straits of Gibraltar and through Spain and France, or through Italy *via* Malta.

Flying mostly by night, and feeding by day, they press forward, over plain and sierra, vineyard and mountain. Losing numbers in nets and traps, and preyed upon by Hawks and predatory beasts, at last, leaving the bitter cold

of the mountain-passes and the dangers of the sea-passage, they reach the hedgerow in Old England where they were born; and all the summer through the quiet fields and leafy lanes, even close up to the great city itself, are



NEST OF BLACKBIRD (*Turdus merula*).

enlivened by a diversity of feathered life, and graceful forms and joyous sounds greet us on every side.

A suburban parish, only partly outside the London postal district, and on the fringe of a dense population, is not the most likely neighbourhood for observing the life habits of wild birds, and yet it is surprising what a number of species are to be met with as more or less

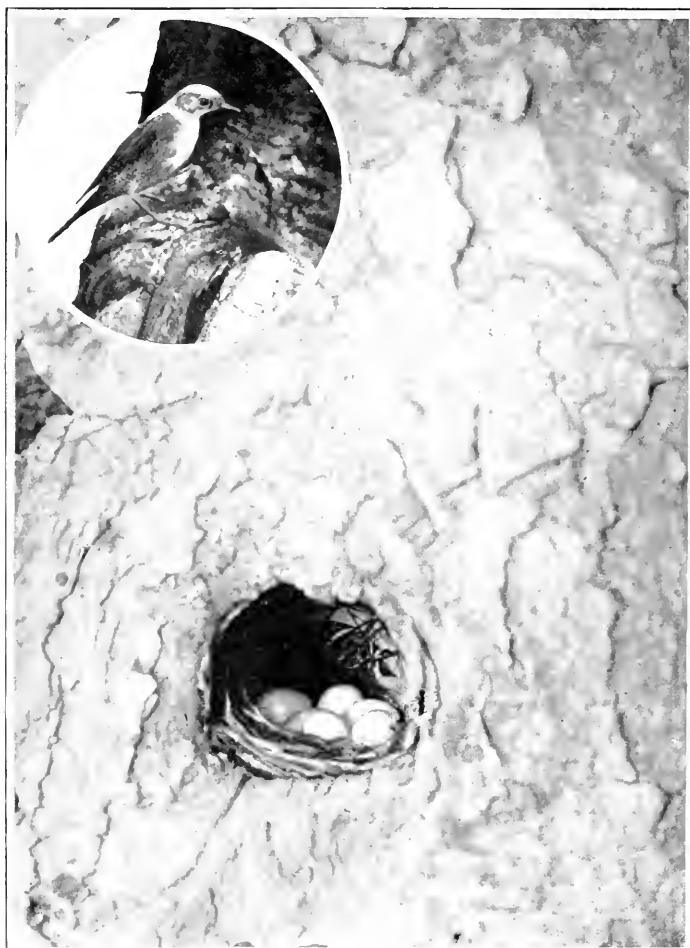
regular visitors at one season or the other, without taking into account those accidental occurrences which happen from time to time. For such an event as the picking up of an exhausted Petrel or other pelagic species in an inland locality seems to me to be quite devoid of any more than a passing interest, and to have no ornithological importance whatever. The particular county in which the storm-driven wanderer happened to fall has no real claim to consider it as an inhabitant, although our British and county lists of species are, as a matter of fact, artificially swelled by the inclusion of many such cases.

My idea in compiling these notes is not so much to



NEST OF WHINCHAT (*Pratincola rubetra*).

gather together records of such rare and unusual events, but rather to describe what I have myself seen of the abundance of suburban bird life, to enumerate the different species (ninety-one) observed during the years 1894 to 1903 in the parish of Enfield, and to illustrate, as far as pos



REDASTART AND NEST (*Ruticilla phoenicurus*).

sible by photographs, their nests, their eggs and young, and, above all, the birds themselves, feeding, sitting on their nests, tending their young ones, and, in fact, engaged in their ordinary pursuits, amid the scenes of their daily life.

Enfield parish, one of the largest in England, is very nearly connected with the outskirts of London, only a few open spaces now intervening between Tottenham and other dense centres of population: and year by year these few spaces are gradually being absorbed and swallowed up by the rapidly advancing tide of bricks and mortar. Rows of mean-looking houses now cover what were but a few years ago pleasant orchards and green fields, and places where the Lark sang and Blackbird and Thrush piped from the tree-tops now resound with the yells of the costermonger and the hideous jangle of the piano-organ.

Old historic mansions and spacious gardens are giving place to streets of small houses, to accommodate the thousands of workmen brought backwards and forwards daily by the cheap workmen's trains, which are the most potent factors in the transformation which is rapidly altering the aspect and character of the place. It is quite right and proper that this should be so—better far that the thousands of working men and women and the little children should



ROBIN (*Erithacus rubecula*).

be enabled to live amid wholerer surroundings than pent up in the squalid courts and alleys of London; but at the same time it is impossible to avoid looking back with some pardonable regret to the old state of things.

To the northward, however, the houses become fewer, and a large expanse of fine open country stretches for some miles between Barnet and Potter's Par, while to the eastward Epping Forest and the marshes of the Lea afford

shelter and food for many of the feathered tribes. Large woods and game preserves, and the estates of large landed proprietors, interspersed with farms of pastoral land, ensure an abundance of bird life which compares very favourably with many a more remote locality. Besides the ordinary species which might be expected in an



NEST OF ROBIN (*Erithacus rubetra*).

inland place, several maritime species have found that the pools and filter-beds and flooded fields of the sewage-farm afford them suitable food and congenial surroundings, approximating closely to the mud-flats and banks of tidal ooze, so beloved by many of the waders and kindred species. Here, at certain seasons especially, they may be observed in numbers wading in the shallow water and busily feeding, just as if they were in some tidal estuary.

The adjacent marshes afford sport to the Cockney gunner during the winter months. When snow lies on the ground, and the pools in the forest and elsewhere are covered with ice, many Snipe and Ducks and a few Teal frequent the banks of the old River Lea, as it wanders in devious course beside the navigable canal. To get these, however, it is necessary to be up betimes. The first gun over the ground after the grey dawn has broken and the first rays of light have begun feebly to penetrate the fog, which hangs thickly over the low-lying marshlands on each side of the river, may have good sport in suitable weather; but it is not very encouraging, for one who has three or four miles to tramp over frozen snow on a foggy December morning before day-break, to find, when he arrives at the river, footsteps in the snow, which prove conclusively that somebody, perhaps one who lives close to the spot, has got the start of him. Such has been my experience before now, in the days when the gun was more familiar to me than the camera. At other times, waiting for the dawn, I have heard all round me the big

flocks of Lapwings feeding, and the swish of wings as a lot of Golden Plover have dashed past in their impetuous flight, and have discerned through the mist the grey and ghostly figure of a motionless Heron, intent on procuring some fish for breakfast. In such weather many Fieldfares, Redwings, and Larks are shot by a class of men who do not consider, or care, that by the

constant popping at such small game the more desirable birds are driven away to quieter retreats.

Most of my observations and work have been done on a small farm of poor land, chiefly pastoral, quite close to the inhabited part of the parish. But one or two important characteristics help to make it a very good hunting-ground



NIGHTINGALE (*Daulias luscinia*) AND NEST.

for the ornithologist. One is that it is bordered on one side by a large wood, strictly preserved; and the other consists in the fact that it is watered by a small stream, which carries off the surface-water of the valley through which it runs. This stream through much of its length is covered over with an almost impenetrable thicket of bramble, wild rose, sloe, and other prickly shrubs and bushes, the home of many Water-hens, Wild Ducks, Nightingales, Sedge-warblers, Bullfinches, Turtle-doves, and many other kinds which delight in similar situations. Some of these strongholds are only to be explored with great difficulty, and at the imminent risk of damage to both person and clothing, the only method being to crawl in on all fours, or even, prone on one's stomach, to wriggle in like a lizard.

The farm, too, abounds in large, old-fashioned hedges, high



NIGHTINGALE (*Daulias luscinia*) SITTING.

enough to provide nesting-sites for many Wood-pigeons, and thick enough to shelter myriads of Nightingales and small birds. These hedges are, however, gradually being reduced and "plashed," to the noticeable diminution of the number of birds to be seen: and the recent introduction of sheep seems to tend to drive away the Nightjars, which formerly nested annually among the bracken at the edge of many

hedges bordering on the wood.

The Mistle-thrush is a most abundant species throughout the year. It may be noticed more particularly perhaps at the end of the



GREATER WHITETHROAT (*Sylvia cinerea*).

summer, when great numbers of them frequent the grass-fields, hopping about over the parched turf, apparently finding food of some kind—but what I have never been able to discover. At this season of the year the ground is sometimes as hard as iron, and the short turf almost burnt up, dry, and yellow, on which these fine, bold-looking birds are extremely conspicuous, and look very light in colour.

At other times they are not so much in evidence, and the first intimation of their presence is generally the harsh, cackling alarm-note as they leave some high hedge or bush.

The nest is built very early in the year: and though there is generally no attempt at any concealment, the nests



NEST OF GREATER WHITETHROAT (*Sylvia cinerea*).

do escape notice more often than those of the Blackbird and Thrush, partly perhaps because the situation is rather higher—generally about seven or eight feet from the ground, and occasionally on the extreme summit of a small larch-tree. They are more usually firmly fixed in the main fork of a hawthorn- or fruit-tree, never among the smaller twigs.

Pictures of Bird Life



and are strongly, almost roughly, made — a most appropriate and fitting home



GREATER WHITETHROAT (*Sylvia cinerea*).

for such a bold, hardy songster, which braves the wildest weather with its cheery song.

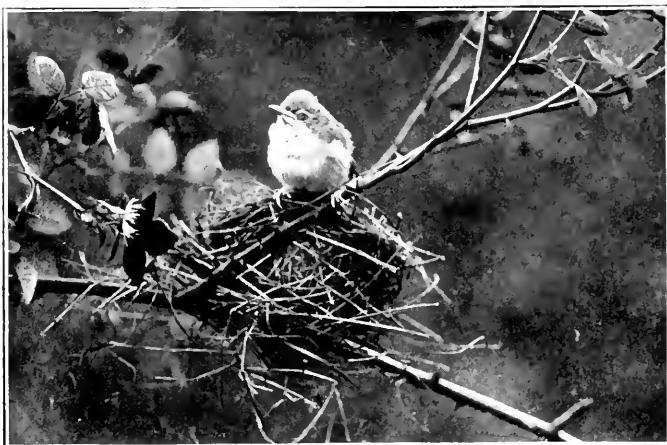
The Missel-thrush appears to have no fear when nesting, and will drive away any bird, whatever its size, if it ventures too near. I

have several times been baulked of photographing some other species when I have inadvertently hidden up near a

Missel-thrush's nest. Both birds have persistently mobbed me, and made such an uproar with their harsh, continuous scolding as to plainly betray my presence to every bird within hearing.

The Song-thrush, in spite of the enormous

number of its nests which are destroyed by boys and vermin (one is almost tempted to write "boys and other vermin") in the early part of the year, is still one of the commonest of our native birds. In the early hours of the morning, and again in the evening, it mounts to the topmost spray of some tree and pours forth its pleasant song. This is but a simple melody, mostly made up of repetitions of single notes, in which traces of almost articulate speech can be detected.



YOUNG LESSER WHITETHROAT (*Sylvia curruca*).

One bird repeats, "Did he do it? did he do it?" and another, "Cup of tea, cup of tea," over and over again. But so pure and fresh is its voice, and so clear and melodious are its notes, as to earn for it the admiration of all. Its rank as a musician is so fully recognised, even by science, as to be shown in its scientific name—*Turdus musicus*; and not only so, but it has earned for its family the foremost place in the scientific order of birds, as embodying the highest



GARDEN-WARBLER (*Sylvia hortensis*).

type of avian development. The family of Thrushes now heads the list of birds, *vice* Eagles deposed. Art has triumphed over strength.

The nest is so well known as to be familiar to everybody: and in the earlier months of the year—for no bird begins to nest earlier than the Thrush—it is frequently made as though the bird rather courted observation than desired to conceal it: and the lovely blue eggs spotted with black are ruthlessly taken by the first boy who passes that way—too often only to be smashed at once, out of sheer mischief and love of destruction. Only a very small proportion of the first clutches of eggs can ever be hatched: but luckily the birds have several broods, and the later nests, made after the hedges are in full leaf, have a better chance of being unobserved.

Like so many other timid birds, it shows considerable courage in defence of its young. One day last year, passing along a hedge-side, I heard a Thrush in distress, and found the mother-bird doing her best—unavailingly, of course—to drive away a pair of marauding Jackdaws, which were bent on devouring her half-fledged young. One young bird had to be killed to put it out of its pain, the black robbers having pecked large holes in its plump and tender body. On returning some hours later, the empty and bloodstained nest showed that the villainous Jackdaws, undeterred at being driven off, had returned as soon as my back was turned, and had completed their nefarious banquet.

On another occasion, while waiting for a Nightjar to



NEST OF GARDEN-WARBLER (*Sylvia hortensis*)

return to her two eggs, a Thrush, which had a nest in a neighbouring bush, saw the Nightjar flitting about, and so hustled and drove it about that it took refuge almost between my feet, and remained there quite a considerable time.

The nest is carefully and curiously made, being finished off with a lining of mud and cow-dung, moulded by the bird's breast into a deep, cup-like form, and then rubbed over with powdered rotten wood. Why the birds should take the pains to make such a watertight nest cannot be explained. One would suppose that a looser construction, which would allow the rain to drain through, would be much more practically useful. Two or three days are allowed for this lining to set and harden before the eggs are laid.

The Thrush is essentially a bird which follows cultivation: fields and gardens are more to its liking than moors and wild, barren situations, where the Ring-ouzel takes its place. Its favourite locality is a large garden, with a good expanse of well-kept lawn, and plenty of shelter in the form of laurel and evergreen bushes and shrubberies. Hours before the gardener is up and about the Thrushes are hopping over the lawns, and scratching the fallen leaves and damp places for worms, slugs, and snails: the shell of these last are cracked by being banged violently against a stone. For these useful services, carried on most industriously all the year round, and for the chorus of bird music daily for a great part of the year, it is surely entitled not only to protection and safety, but to a share of the fruit in

due season. If it takes a few strawberries when they are ripe, surely it has fully earned them by keeping the beds clear of slugs and caterpillars and other insect pests throughout the year. Too many of us accept their services, and enjoy their presence and sweet minstrelsy, but grudge them their fair share of the produce they have helped to



HEN BLACKCAP (*Sylvia atricapilla*) ON NEST.

raise. It would be just as reasonable to expect the gardener to work without wages.

Though a resident with us throughout the year, the Thrush appears to be subject to migratory impulses from one part of the country to another, and immense numbers cross the sea.

The Redwing and the Fieldfare are only winter visitors, arriving regularly every autumn from their Scandinavian

homes, and remaining with us well into the summer, long after our resident Thrushes have begun their nesting operations. Like all birds which breed in northern latitudes, they appear to know perfectly well the difference in the seasons in their summer and winter resorts, and are never deluded by warm weather here to take a too early departure, only to find themselves without food in a region still covered with snow and ice.

Unlike some birds which visit us from wild and uninhabited districts, these birds are remarkably shy and wary—the Fieldfare particularly so—and do not readily allow a nearer approach than about a hundred yards. When this limit is reached, the whole flock, which has been clustered on the topmost branches of some high tree, fly off to another, about fifty or a hundred yards farther on, each bird uttering its loud alarm note—“Chack, chack!”—as it takes wing. This note can be heard high overhead when large flocks are on the move from one part to another, and doubtless serves to keep the flock together, as each bird proclaims its whereabouts, and stragglers can trace the progress of the main body.

The Blackbird is another frequenter of gardens and cultivated fields, and there are few lawns where the “Ouzel cock so black of hue” may not be seen, before the morning dew is off the grass, hunting for worms and slugs. With what intentness it listens, its head on one side, and the bright, lustrous, orange-rimmed eyes eagerly scanning the grass! Then with a spring it hops forward, and the



WILLOW-WREN (*Phylloscopus trochilus*) AND NEST.



WILLOW-WREN AT NEST.

glimpses of bird life,—the Blackbird and Thrush on the dewy grass: the Robin, with its bold and sprightly familiarity: the sober Flycatcher, performing its quiet but useful services throughout the long summer day: the burnished Swallow, on tireless wings, sweeping to and fro so unceasingly: and the lovely Martin, twittering happily in its mud nest under the eaves. The presence so near our houses of such graceful visitors as these ought to be looked upon as a privilege and a constant enjoyment, without taking any account of the undoubtedly good they do in devouring grubs and insects.

The Blackbird is, too, a most accomplished musician, and its mellow flutings are by some preferred to the song of the Thrush. By its constant vigilance, and its loud, rattling alarm-note, which gives warning to all within hearing that danger is approaching, it merits the title of

luckless worm is seized by the orange beak, dragged out, and promptly swallowed, despite its convulsive wriggles and squirmings.

Sharing the labours of the Thrush, it also shares the rewards, taking its tithe of ripe strawberries and cherries. To me the fairest and best-kept garden in the world would seem but a barren wilderness without such



Wünsch V.
(*Pratincola Ruivira*)

the "sentinel" of the fields. Many a promising "stalk," with both gun and camera, has been baulked by its timidity and unceasing vigilance.

The Stonechat is very scarce and local, and I only remember seeing two or three about, and have never yet succeeded in finding a nest. In the next parish, however, of Edmonton, it is a common bird. Numbers may be seen



SEDGE-WARBLER FEEDING YOUNG (*Acrocephalus phragmitis*).

in the cemetery there any day throughout the summer, and I feel sure that they nest in the long grass at the sides of the graves. The birds themselves are fond of sitting on the gravestones. This cemetery is quite a favourite resort for birds; the following species breeding there to my knowledge — Lark, Meadow-pipit, Blackbird, Thrush, Partridge, Red-legged Partridge, Carrion-crow, Martin, Swallow, Hedge-sparrow, and Cuckoo.



SEDGE-WARBLER (*Acrocephalus phragmitis*) AND NEST.

The Whinchat, on the contrary, is exceedingly abundant—infact, quite one of the commonest birds. In every field and meadow a pair or two of these sprightly and handsome little birds may be seen flitting from the top of some low plant or spray to another. The note sounds like "Utick-utick, utick-tick-tick," incessantly repeated, and that of the young just after leaving the nest is just like "Egypt-Egypt." Their nest is one of the most difficult to find, so well hidden is it among the long grass. It is generally, or at all events very often, placed at the foot of some little sapling or upright plant, which serves as a perch for the birds.

One pair, which had a nest of young underneath a fallen branch, always perched on one end of it every time



NEST OF HEDGE-SPARROW (*Accentor modularis*).

they came with food. This fact once ascertained, it was comparatively easy to photograph them from the shelter of a bush not many yards away. On one such occasion an extra large mouthful was plainly visible in the beak of the bird, but not until the plate was developed did I guess the nature of it. It proved to be a large beetle—a most indigestible-looking morsel for nestlings; but I suppose the bird might be trusted to know its own business best.

Another pair became very tame, finding by experience that I was not dangerous, and I made a series of exposures eventually at a distance of not more than two yards in the open, without any attempt at concealment. The cock was in this case much the bolder, contrary to my usual experience. So tame did he get, that eventually he would come and sit, just in front of the camera, on different twigs stuck in the ground for the purpose; and I finished up by photographing him as he sat on the handle-bar of my bicycle.

For these photographs I used the latest development of camera for this work—viz. a tele-photo lens and a short reflecting camera, mounted on a gun-stock. This is a much handier weapon than a camera on a tripod in following a bird about in its movements from place to place and from twig to twig. When using the tripod in photographing a moving object at short distance, the readiest way is to place the point of one tripod leg—the back one—on the toe of your boot. Then, by moving your foot backwards and forwards, the camera can be raised and



BLUE TIT (*Parus caeruleus*) AND ELDER-STUMP CONTAINING NEST

lowered with greater ease and speed, and with less noise and risk of slipping, and it leaves you a hand free. This

alone is a great advantage. I could often find a use for three or four hands, and a spare eye or two would be useful.

Manipulating a whole-plate camera up a tree, for instance, or on a long ladder, is very often an awkward bit of work, and, single-handed, may very well take over an



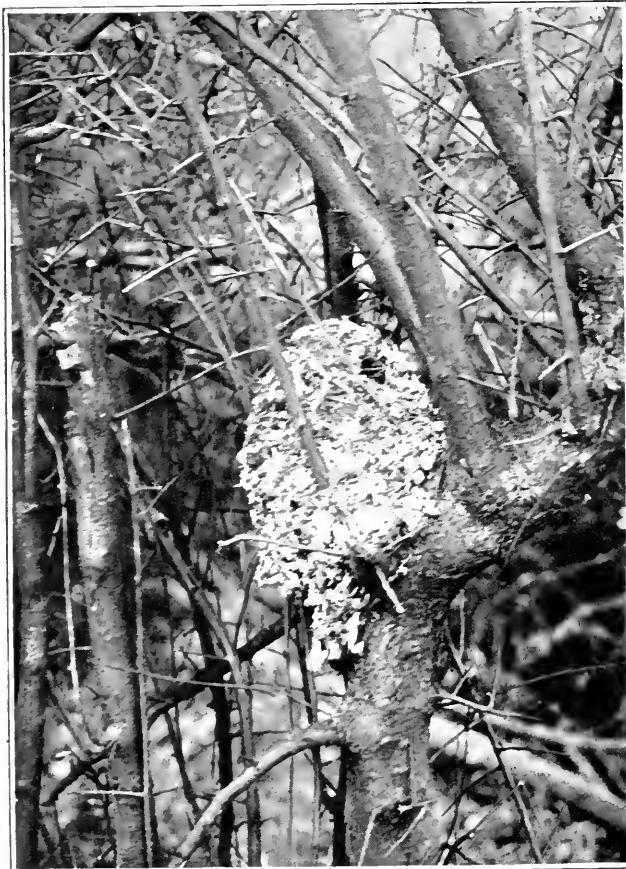
NEST OF MARSH-TIT (*Parus palustris*). HOLE EXCAVATED BY BIRD CUT OPEN TO SHOW NEST.

hour's hard labour before you can get satisfactorily focussed. To obtain the photograph of the Spotted Flycatcher's nest on page 87, the spike of one leg of the tripod rested on

the topmost rung of the ladder, and was there lashed with string, the remaining two legs being lashed to overhanging boughs of the tree—an oak. As these boughs were thin, and moved freely with the slightest motion, focussing was no easy job, especially as I had to stand on the ladder and lean backwards to look into the focussing-glass. The only hold within reach being the same thin boughs which held the legs, the operation was somewhat of a shaky one, and the subsequent work of putting in the double back and withdrawing the slide had to be performed with no hold at all, both hands being occupied. Under the circumstances I was rather surprised that the negative was any good, especially as the f.32 stop necessitated an exposure of ten seconds. And this was only an ordinary case, with no special difficulties about it. A more difficult as well as a more dangerous work was the photographing of a Barn-owl's nest at the top of a thirty-foot ladder. Leaning backwards to focus, my weight was entirely supported by the extreme tips of two fingers on the edge of the hole (I could not reach with the other fingers), while the other hand worked the focussing-screw. To ensure getting at least one good negative, I tried to expose both plates, and, owing to the difficulty of the situation, only exposed the same plate twice over, thereby spoiling both!

The Redstart is often met with, though it can hardly be described as common. It is a conspicuously beautiful bird, and the nest is sufficiently scarce to be worth finding. Holes in old apple- and pear-trees are favourite places; the one shown

was in a sycamore-tree, at a most convenient height from the ground. The six eggs were exactly as they appear in the photograph, plainly visible from the outside, which is not usually the case.



NEST OF LONG-TAILED TIT (*Acredula caudata*).

The Red-breast is without doubt THE bird of the suburbs — the universal and favoured frequenter of every garden. Its cheery song during the winter, when other songsters are silent, and its familiar boldness, make it a welcome guest with everybody, and one pardons it

for its greediness and pugnacity. Two rival Robins will fight with a fierce disregard of consequences almost incredible in a bird of such small size.

The Robin may, with a little perseverance, be induced to feed from one's hand, and to enter a room through the open window, and its ways are then very engaging. It is always a mystery to me how it escapes the claws of the prowling cat. While nesting operations are in progress, however,



HALF-MADE NEST OF LONG-TAILED TIT (*Acredula caudata*).

it is, like many other birds, much quieter and less conspicuous.

Gardening operations, and especially digging, interest Robins not a little. An infallible way to bring one within reach is to take a spade and dig a few spadefuls of earth. Then leave the spade sticking up and retire a little. If there is a Robin anywhere near, it will certainly come and search over

the up-turned earth for worms, and afterwards it will as certainly sit on the handle of the spade. If a camera be left, focussed on the handle, and a long string or tube be fitted to the shutter, you may get a photograph of it, provided the shutter is a noiseless one, otherwise the result will be failure. The first time I tried it, the Robin did all I expected of it ; but although the shutter was set about the twentieth or thirtieth part of a second, five exposures only secured me five photographs of an empty spade-handle. This will give an idea of the lightning quickness of a bird's movements ; at the click of the shutter it had hopped off quickly enough to avoid being taken.

The Nightingale is a very abundant species, much more so than people in general seem to imagine. On their first arrival, before pairing, and also after the young are hatched, these birds make a curious croaking noise, like so many



PIED WAGTAIL (*Motacilla lugubris*).



PIED WAGTAIL'S NEST WITH YOUNG (*Motacilla lugubris*).

frogs. Their song may be heard in every direction in the fields and in many of the gardens, not only in the evening, but at all hours of the day. The quite mistaken notion that it only sings at night is probably traceable to the poets, who are also responsible for the idea that the song is of a melancholy nature. This may be perceptible perhaps to the poetic mind, which may be, and probably is, more sensitive to minute shades of expression than that of ordinary folk : to me the song seems the result of intense joy.

Poets are, in fact, not to be trusted, however much they may be admired. The truth is not in them and concerns them not. A good rhyme or a well-rounded sequence of

words is more important to them than the mere truth of any fact.

I think it is Mrs. Hemans who writes of the sky-blue eggs of the Lark! Tennyson is more poetic, and also more correct, when he writes:

As the music of the moon
Sleeps in the plain eggs of the Nightingale.

And even Tennyson is not altogether perfect. Some of his

allusions to birds are, however, particularly happy. What, for instance, can be more true than the line—

As careful Robins eye the
delver's toil?

You can almost see the redbreasted favourite of childhood, Cock - robin, watching with sidelong glance and bright black eyes the spadefuls of earth

thrown up by the gardener, and pouncing eagerly on luckless worm or earwig as soon as uncovered.

Or, as a forecast of spring, what could be more fitting than—

The building Rook 'ill caw from the windy tall elm-tree,
And the tufted Plover pipe along the fallow lea,
And the Swallow 'ill come back again with summer o'er the wave?

Nightingales, though shy and retiring, may be easily



YELLOW WAGTAIL (*Motacilla raii*).



YELLOW WAGTAIL (*Motacilla rufa*) AND NEST.



NEST OF MEADOW-PIPI (Anthus pratensis).

watched, especially when the young are hatched and the parent birds are busy supplying them with insect food. I have had a close and friendly acquaintance with more than one pair, and have photographed what I have some reasons for supposing to be the same pair for two successive summers. The second nest was situated a few yards away from the spot where they had successfully reared a brood the previous year. On the first attempt, I had to wait in a ditch covered over with a green cloth for seven hours before the mother-bird appeared at the nest. On their second visit they appeared to recognise me as a friend of the family, and laid aside so much of their usual timidity that I did not go through the formality of the usual careful concealment. Though equipped

with a most alarming-looking camera, they visited their nest to feed their young quite openly and fearlessly, and enabled me to get several photographs within half an hour.

It is a delightful experience to thus watch at close quarters the whole domestic economy of such interesting birds, and to see the mother-bird flit from spray to spray in her search for caterpillars and insects. They are most particular in keeping the nest clean, searching it after every visit, and removing in their beak the refuse of the young birds, flying right off and dropping it many yards away.

The distribution of the Nightingale in England is curious. Though so common in many parts, it fails to penetrate



NEST OF TREE-PIPIt (*Anthus trivialis*).



"ON THE WATCH?"
HEN RED-BACKED SHRIKE (*Lanius collurio*).

typical Robin. The same sprightly movements, large bright eyes, drooping wings, and long legs are at once noticeable. The young birds in their first plumage are also exceedingly like young Robins, and may easily be taken for them.

very far westwards and northwards. It is only quite recently that it has been recorded from Devonshire and Yorkshire, and in one Lincolnshire locality where formerly it was unknown it now nests sparingly every year. The increased range of such a famous songster is an interesting fact, especially in these days of extermination.

The first thing that strikes one on seeing a Nightingale is its large size and ruddy colour, especially about the tail. In its general appearance and attitudes it is a



COCK RED-BACKED SHRIKE (*Lanius collurio*) SEIZING AN INSECT.

The nest is really a wonderful construction of dead oak-leaves—a most intractable building-material, one would think. The very deep hollow is lined with hair. In such a setting the olive-brown eggs have a unique appearance—in fact, neither nest nor eggs can possibly be mistaken or confounded with those of any other British bird. It is invariably placed on the ground, and whether in a ditch at the foot of some sapling, or amid the stalks of a dense bed of nettles, it is always well concealed, and only found after a careful search.

Their song, about which so much has been written in prose and verse, is matchless in its purity and quality. In passionate intensity it is unrivalled, and its characteristics are so unmistakable that once heard it can never again be mistaken. It ceases after the young are hatched, after which the croaking note is the only sound uttered.

The most common of all the Warblers, and the one which has the widest distribution, is the Greater White-throat. From its partiality to nettle-beds it is often known as the "Nettle-creeper," and in some parts as the "Hay-bird" or "Hay-chat." It is an unobtrusive little bird both in appearance and habits, and one not often seen in the open, preferring, as it does, the shelter of thick hedges and bushes. Here it creeps about all day, finding abundance of food in the minute caterpillars and other insects so numerous during the summer. So persistently shy and skulking is it that for some years I tried in vain to obtain a photograph; every attempt, however patient, always resulted in failure. But eventually a pair was found nesting

in a thick bed of nettles, and by visiting them daily for some time they became so familiarised to my presence that I had no difficulty in getting a series of photographs in different positions.

Most birds, it will be found, approach their nest in the same direction. Small birds like the Warblers generally creep through the thickest of the surrounding vegetation in mouse-like fashion, and slip quietly and silently into the nest from the back. Very often the first intimation of the approach of the parent comes from the young birds, which suddenly pop up their heads and open their beaks suggestively. Sometimes from your hiding-place you can see a leaf or spray quiver as the bird noiselessly makes her way along. Some, again, fly openly from the top of one bush to another, like Whinchats, and others keep up a constant wailing, querulous note like Willow-wrens. But after a little watching you will nearly always find there is some particular branch on which the birds perch every time. The camera can then be pointed and focussed on the place, all ready for the next opportunity.

This particular pair of Whitethroats invariably used a bramble-stalk which grew up diagonally, and at the foot of which the nest was placed. Starting at the top, they always crept down the stalk, gradually assuming a more perpendicular position till the nest was reached, when, stooping down to feed the young birds, their tails pointed straight upwards. By focussing different parts of this bramble, I obtained a variety of interesting positions, including one



NEST OF RED-BACKED SHRIKE (*Lanius collaris*).

showing the old bird's beak and part of her head inserted down the young bird's gaping throat.

The Lesser Whitethroat is distinctly more uncommon than the last species, though several nests are found each year. They are very similar in construction to the last, but a little smaller, and are very often much higher up, sometimes almost at the top of a high hedge. In such a situation you very seldom find a nest of the Greater Whitethroat, which prefers a more lowly nesting-site among brambles and low bushes. The eggs are rounder and smaller, and of two quite distinct types: one, except in size, closely resembles the egg of the Greater Whitethroat, and is of a freckled greenish white; the other is always very round, and the spots are distributed in a zone round the larger end, leaving the rest of the egg almost colourless.



SPOTTED FLYCATCHER (*Muscicapa grisola*).

The birds are slighter and more elegant in appearance, and not quite such persistent skulkers. Any close approach to their nest is much resented: the little birds, with erected crests and excited actions, will follow an intruder, vigorously scolding the while with harsh and chiding note.

The Garden-warbler in some seasons almost rivals in numbers the Greater Whitethroat, 1898 bringing an unusual number of these birds to our neighbourhood. The nest much resembles those of the two former species, but is perhaps a little more shallow. A favourite locality is among the bare, leafless stems of bramble, below the thick cover of green leaves which clothes the outside of the bush, and roofs in, as it were, the space below. The eggs, however, are much more like those of the Blackcap—in fact, it is sometimes impossible to distinguish them. I have seen it somewhere stated that the Garden-warbler and the Blackcap are never found in equal abundance in the same place. Here, at all events, facts seem to bear out the statement, for the Blackcap is much less commonly met with than the other. I have found a few nests, on one of which I photographed the russet-headed hen-bird, and have seen the cock Blackcap take his share of domestic duties.

From its diminutive size and feeble flight the Goldcrest is not a species one would expect to find in the habit of migrating. It does so, however, in considerable numbers, and occasionally remarkably large flocks arrive on the eastern coast during autumn, some years being noted as bringing unusual numbers.

Howard Saunders says: "An unusual spring rush took place in March and April, 1882. On such occasions bushes in gardens on the coast are covered with birds as with a swarm of bees: crowds flutter round the lanterns of lighthouses, and the rigging of fishing-smacks in the North Sea is thronged with weary travellers."

The following graphic account from the pen of the late Mr. Cordeaux appears in the *Zoologist* for December, 1892: "During this time the immigration was immense: greatest in number were Golden-crested Wrens. . . . Golderests everywhere—in hedges and gardens, dead thorns and hedge-trimmings, rubbish-heaps, beds of nettles and dead Umbelliferae, the reeds in ditches, side of haystacks, and the thorn fences of sheds and yards. The sallow thorns were *densely crowded*. Many found shelter in the long sea-grass, and others, again, crouched on the bare, rain-swept sands between the sea and the dunes. Many might have been taken with a butterfly-net. On this day I saw a very handsome Fire-crest. I was standing in shelter of a big fence, watching the Golderests working inland up the hedge and flitting close to my face, when one tried first to alight on the stick of an umbrella which I held horizontally over my shoulder, and then perched on a twig within a foot of my nose."

The date of this great "rush" of Golderests was October 14th, 1892.

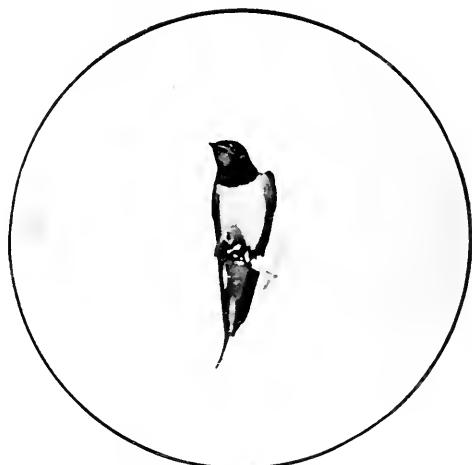
These exceedingly restless little birds are more readily observed in the winter and early spring, when their minute forms are more easily seen in the leafless hedges.



SPOTTED FLYCATCHER (*Muscicapa grisola*) AND NEST OF YOUNG.

Probably the first intimation of its presence will be the sound of a shrill succession of high-pitched notes like "Zi-zi-zi," as a small party of Goldcrests explore a small wayside bush. How incessantly they flit from branch to branch, sometimes head downwards like a Tit, sometimes hovering like a moth, until, after having finished a rapid examination of the bush, they all dart off with undulating flight one after the other to the next! They are often to be seen in company with Tits of several kinds. During the summer they are not so readily seen among the heavy and sombre foliage of the firs and evergreens in which they build their nest. This nest, one of the most beautiful examples of bird architecture we have, is always suspended from the underside of a spreading horizontal bough of some fir, larch, or yew, and, being compactly made of green moss, very easily escapes notice. Even when found, it is not an easy nest to photograph, owing to the deep shadow cast by overhanging branches, especially if of spruce or yew. Two attempts have been failures, owing to the utter impossibility of seeing anything on the focussing-glass.

If the Swallow be the harbinger of summer, the Chiff-chaff is that of spring. While hedges and trees are still bare and leafless, its note may be heard in the tree-tops like



SWALLOW (*Hirundo rustica*).

“Chip-chip-chip,” at such a height that the minute form is barely visible. The bird is smaller than the Willow-wren, and has darker legs. The nest is domed like the Willow-wren’s nest; but the eggs, instead of being spotted with red, have dark purple spots. It is very fond of frequenting large gardens with plenty of undergrowth and low bushes.

The Wood-wren is more local, and I have not met with it nearer than Broxbourne and Epping Forest.

By far the commonest of the three is the Willow-wren, which abounds in every direction. Perhaps the place of all others to look for it with certainty is in the outskirts of a wood or plantation, where the trees are more open, and where bushes, sallow, and such-like predominate amid bracken and coarse grass. Here its slender, yellowish-brown form may surely be seen searching the twigs and foliage with graceful actions. Here its nest may be found carefully hidden among the coarse grass and bracken, domed at the top, and comfortably lined with feathers. On the ground is the usual place, but I have seen one quite three feet high, and there is no doubt that it does occasionally depart from its usual custom.

The nests are generally found by the bird flying out, for they are by no means easy to discover. On two occasions I have, while waiting near a Nightjar’s eggs to photograph the old bird, found a Willow-wren’s in close proximity by seeing the birds go in and out. They will feign lameness in order to entice you away from the vicinity of their eggs or young.

The Reed-warbler I have not yet identified with certainty; it is not unlikely that it may have occurred once or twice, as I have been told, on the Lea, and I am almost sure I saw one in a small patch of reeds one day early in May.

The Sedge-warbler is exceedingly abundant. The name of this bird is, however, I think, very misleading. It is not particularly fond of sedge, nor is it at all restricted to marshy places. Any thick hedge and rough, prickly bank will afford it a suitable home, and it is rather partial to railway embankments. It is certainly very fond of osier-beds and marshes, but in the latter it occurs in the drier parts. In either of them its characteristically loud song may be heard all day and well into the night.

It is perfectly surprising to see with what frequency and regularity the young of these insect-eating birds are supplied with food by their parents. No sooner has the mother-bird distributed a fat grub or luscious, juicy caterpillar to each of her four or five young ones than she is back again with a fresh supply, in what always seems to me an incredibly short space of time. Their prying eyes and nimble actions search out so thoroughly every leaf and stem that it seems wonderful that any insects at all escape. What their numbers would be without this check upon their increase is impossible to estimate.

On one or two occasions the curious reeling note of the Grasshopper-warbler has been noticed in spring, probably from birds freshly arrived and simply passing through, for

on a second visit to the spot on the next day nothing further has been seen or heard of them. I have heard of one nest, however, being found, which, I am glad to say, was left unmolested.

The Hedge-sparrow is, of course, abundant. Its beautiful nest and eggs are among the first to be found in early



NEST OF SWALLOW (*Hirundo rustica*).

spring. This bird is a frequent, if unwilling, host for the Cuckoo's eggs. For two years I have attempted, by uncovering all the Hedge-sparrows' nests I could find, to induce a Cuckoo to lay, but so far without success. These birds perhaps prefer to find nests for themselves.

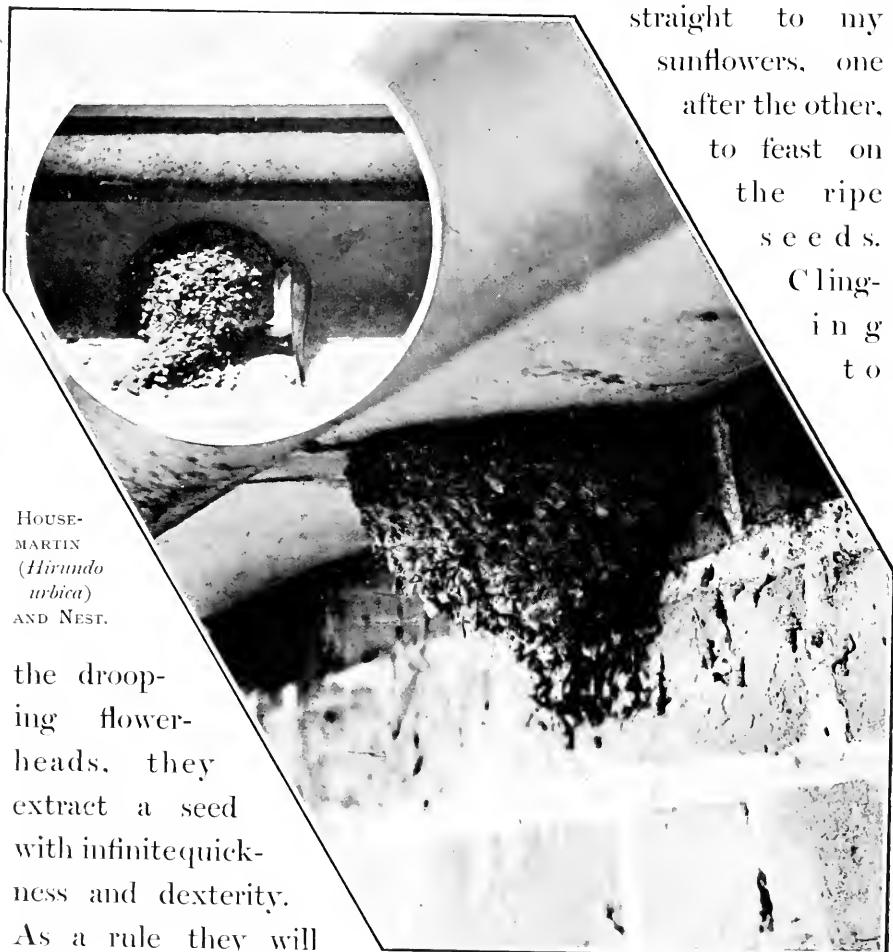
Five species of Titmice are represented on my list—

the Great Tit, the Blue Tit, the Coal-tit, the Marsh-tit, and the Long-tailed Tit.

The first four I have frequently seen in my small garden in the autumn. They are all very fond of sunflower seeds, and are very quick to find out where they are grown. I have often been interested in watching them fly

straight to my sunflowers, one after the other, to feast on the ripe seeds.

Clinging to



HOUSE-
MARTIN
(*Hirundo
urbica*)
AND NEST.

the drooping flower-heads, they extract a seed with infinite quickness and dexterity. As a rule they will

fly off with each one, and return presently for another; but sometimes I have seen them eat one on the fence. Grasping the seed with one foot, they hammer it with the beak two or three times very quickly, and soon get at the nutty kernel. In the winter we fasten bacon-rind to a tree for their benefit. They soon find out and visit regularly any titbit put out for them, such as fat, cocoa-nut, a bone, or a lump of suet.

Both Great Tits and Blue Tits are well known to be fond of curious nesting-sites; many of the lamp-posts around are regularly used by them, and I have seen pumps and gate-posts also used. On one occasion I was just in time to rescue a pair of Marsh-tits which had been caught by two boys from their nest in a hollow gate-post. They were going to kill them, till I persuaded them to release them, for the sake of their family, plainly audible but out of reach, in the centre of the post.

The Blue Tit in the photograph had a nest of young in the hollow elder-stump, but popped in so quickly that it was impossible to photograph it. The hole was accordingly stopped up with brown paper. This gave me a chance, as the bird pondered as to the best means of getting in to its hungry brood, which were clamouring for food.

The Long-tailed Tit varies in many particulars from the rest of the family. Instead of a loosely constructed heap of feathers and moss in a hole, it builds for itself a beautiful domed nest in the almost bare hedges of early April. How the numerous long-tailed family, numbering from six to

eight, can live in such a small abode is a mystery I have never been able to solve. After the brood are fledged, instead of being sent off to do for themselves as best they may, the whole family of young and old keep together throughout the autumn and winter months. Often in company with numbers of other Tits and Goldcrests, the



NEST OF GREENFINCH (*Fringilla chloris*).

merry party flits along from tree to tree and from bush to bush, always busy, and incessantly uttering their shrill call-note to tell their companions of the whereabouts of each member.

This bird suffers much from boys. The nest in a leafless hedge is very conspicuous, and the first boy who

passes pulls it out as a matter of course. But the birds, in spite of this treatment, stick to the same hedge and make another close to the same place, which generally suffers a similar fate. I knew this spring one pair of Long-tailed Tits which built four nests before they were able to rear a brood in safety. They did succeed at last, for after my return from Denmark I saw the whole family party. They built in the same hedge year after year, and I always know where to find two nests every season, one at each end of the farm I mostly frequent.

This year I found a half-finished nest, which shows the method of construction. It exactly resembled a Chaffinch's nest, but one of the Long-tails entered it while I was in the act of focussing with the lens not more than a foot away. It was pulled out the next day before it was finished, being the third of those just mentioned as made by the same pair of birds.

The Nuthatch is common enough, and may be often heard by those who know its liquid note. Its whole life being spent among the lofty branches and rugged trunks of large trees, it is not a bird which is often seen. Its climbing powers are wonderful, even rivalling those of the Woodpeckers, and excelling them in one particular. Although unprovided with the stiff tail or the climbing foot of these birds, it can run down a perpendicular trunk, whereas they, with the assistance of the fulcrum of their tail feathers, can only run up. As is well known, they have the curious habit of filling up the aperture of the

hole in which they nest with clay and mud, so as to reduce the size of the opening.

The Wren, though not much bigger than the Goldcrest, and like it of short and feeble flight, is also in the habit of migrating, though more irregularly. Both on the west and east coasts of Scotland and the east coast of England it has been recorded in the returns furnished by the lighthouse-keepers as arriving generally in small numbers. Once, however, mention was made of "great numbers seen in the Isle of May."

Its nest is well known, but is none the less a wonderful construction for such a tiny being. It is very much addicted to building a number of nests which are never used. The materials of these nests are cleverly adapted to their surroundings. If among ivy or green leaves, they are easily made of green moss. A very favourite situation is in the side of a haystack, and then the material used is invariably hay: while, should it be in dead ivy or dried plants, it is made of dead and withered leaves.

A well-known frequenter of the farmyard, as well as the stream-side and meadow, is the Pied Wagtail. This bird, though only clad in sober black and white, is exceptionally dainty and elegant in appearance and ways. It trips along so lightly, constantly flirting its tail-feathers up and down: then running a few paces, it stops suddenly and darts off in another direction or flies to some stone or post. The flight is very undulating, and the note, constantly uttered on the



HEN CHAFFINCH (*Fringilla coelebs*) AND NEST.



COCK CHAFFINCH (*Fringilla coelebs*).

contained six eggs, very like Sedge-warbler's in appearance. The birds were very shy, and it took me two days to photograph the hen on her nest, and I had almost given up the idea of getting them off the nest, when at last I noticed that before flying across the ditch they always settled on a tall dock just opposite. This gave me a chance of obtaining some good positions, in spite of a very strong wind which was blowing at the time.

In the same locality are also immense numbers of Meadow-pipits, which feed all the year round about the little pools on the numerous insects so abundant in such places. Here you can see them to advantage when they are busily engaged feeding or chasing one another, which they are so fond of doing.

wing, sounds exactly like "Chis-wick, chis-wick." On the sewage-farm it is exceedingly numerous all the year round.

The beautiful Yellow Wagtail is found in some numbers in the same place.

A nest photographed two or three years ago was in a ditch-side, and con-

The Tree-pipit is more frequently found in the fields, and seems to be particularly addicted to railway embankments, where its nest may frequently be found. Unlike the Meadow-pipit, which is resident, the Tree-pipit migrates before the approach of winter.

The Red-backed Shrike is a common species all round the north of London. On the topmost twigs of the tall hedge in which the nest is placed it sits on the watch for insect prey: for though it will kill small birds and mice, by far the greater part of its food is composed of beetles and other insects. The castings show



NEST OF HAWFINCH (*Coccothraustes vulgaris*).

abundance of beetle wing-cases. These are generally caught by the bird pouncing down on them on the ground. During haymaking operations it is keenly observant of insects disturbed by the machines, swooping down on whatever it may see and carrying it to the young, which are fed long after they have left the nest. All the Shrikes have a curious and characteristic habit of moving the tail round and round in a circular fashion, quite unlike the usual up-and-down motion in vogue with most birds.

Every garden of any size round London contains a pair or more of Spotted Flycatchers. These, from the vantage-point of croquet-hoop, dahlia-stick, or tennis-net, spend the whole long summer's day in catching flies. Here they sit on the watch, repeatedly flying off to catch passing insects with an audible snap of the beak, returning generally to the same place to wait for another. The Spotted Flycatcher is one of the latest to arrive of the summer migrants, and one of the most silent. It appears to have no song, but often utters its short, shrill note.

Three species of Hirundines are found, but the Sand-martin only in small numbers. For some time the nearest colony of these birds I could find was at Broxbourne, but in a gravel-pit near the London Road there are a few burrows which the men working there declare to have been used this summer. Numbers can be seen at the end of summer passing along southwards and hawking over the New River, and the pools at the sewage-farm are frequented by immense numbers just before their final departure.



GOLDFINCH (*Carduelis elegans*) AND NEST.

The Swallows nest in every cowshed and barn around, and also under all the New River bridges, where they are particularly safe from molestation.

In Spain the Swallows nest freely in the rafters of the rooms, instead of outside and in the chimneys, as with us. Entering one day an Andalusian "posada," or wayside inn, several Swallows were quietly sitting on their nests just over the head of the brown and sun-dried host. I photographed one perching on a nail projecting from the whitewashed wall of the "patio" of the British Consul's house at Bonanza, the small port at the mouth of the Guadalquivir.

In this country it is the Martins which chiefly frequent human habitations, but always outside under the eaves. Here they build up, pellet by pellet, a curious, oven-like abode of mud, and line it profusely with feathers and a few straws.



HEN REED-BUNTING (*Emberiza schoeniclus*) FEEDING YOUNG.

The nest is chiefly built in the early part of the day, and then left to dry before the work is resumed the following morning. The birds may be seen collecting mud from puddles in the road and in farmyards and ponds, and I have even watched them picking it up from the metals of a tram-line after rain. A pretty sight it is to see a House-martin chasing a big white feather as it is carried hither and thither by the gusts of wind, and finally carrying it off to line its newly finished nest.

Both Swallows and Martins, though not accounted songsters, have a remarkably sweet but short song, uttered both on the wing and while perched on a roof or bare branch of a tree, as they so often do on first arrival. After the young have left the nest, they are often to be seen perching in small companies on a leafless branch: young Swallows may readily be distinguished from the adults by the absence of the two long pin-feathers in the tail.

The whole question of bird migration is a curious one; and while we know more about it than in the days of Gilbert White, there are many points which have yet to be cleared up. One of the most curious facts about it is the departure of the young Swallows and other birds *before* that of their parents.

Mr. Dixon writes in one of his books, "The Migration of Birds" (pp. 178-9): "The young birds are the greatest blunderers—the birds which have practically no knowledge whatever of the road; and have to depend entirely on the guidance of older birds. That this is the case is abundantly

proved by the fact that nearly all the birds that accidentally wander to the British Islands, from more or less remote countries, are birds of the year."

This would seem at first sight to account for the frequent arrivals, on the east coast especially, of birds which do not visit us habitually, occasionally even of those which have never before been met with in any part of Europe.

For instance, the Asiatic species *Luscinia l. schwarzii* (Radde's Bush-warbler), a young bird, was recorded in *Knowledge* as shot in Lincolnshire on February 1st, 1899. There is no other record of this bird in Europe.

A specimen of the Siberian Meadow-bunting (*Emberiza cioides*) was shot at Flamborough in November, 1896, and has also never been obtained in any part of Europe before, not even in Heligoland.

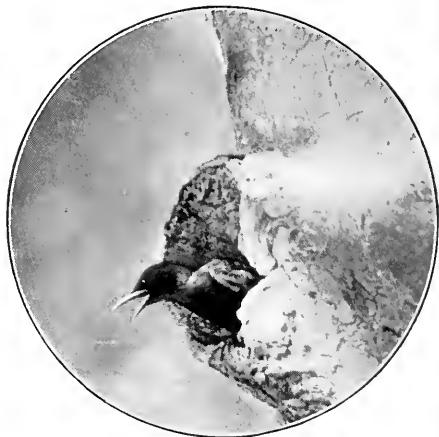
It would be interesting, if such a thing were possible, to find out what cause led these wanderers from the north of Asia to visit this country. For the true home of the latter species seems to be in "Turkestan, Siberia, Mongolia, Manchuria, and Korea, and over a great part of China" (Saunders).

Three specimens of the Desert-wheatear (*Saxicola deserti*), a native of North African deserts, have been obtained in England. One of these is described as a young bird (Saunders). But if other competent observers are correct, Dixon is wrong, both in his facts and in his deductions from them. For the late Herr Gatke, who studied the migratory movements of birds for fifty years at Heligoland, that wonderful natural observatory of bird life, altogether denies that the majority



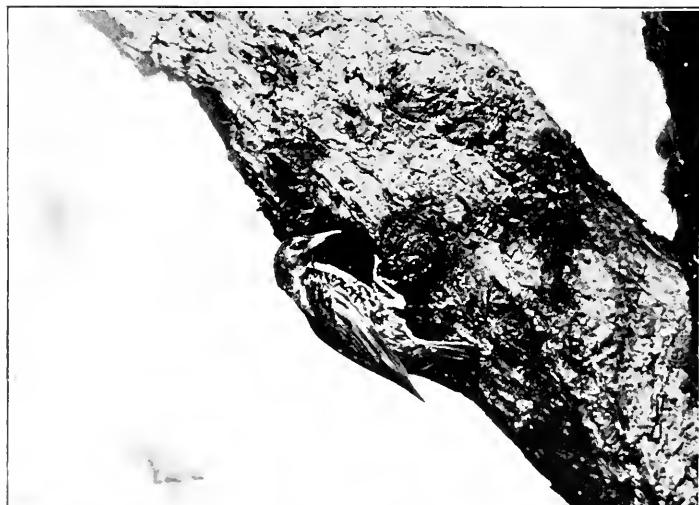
REED-BUNTING (*Emberiza schoeniclus*) AND NEST.

of "accidental" visitors are immature; in fact, from a list furnished by him to Mr. Cordeaux, an overwhelming majority were adults, and in a letter to the *Zoologist*, May, 1893, he writes: "Ornithologists ought to give up the worn-out myth of inexperienced young birds dependent on the teaching and guidance of their experienced parents; for the moment the young are tolerably well able to take care of themselves parents and young separate, and become total strangers to each other. The first perfect plumage of the latter being completed, in a few weeks they start of their own accord, and entirely by themselves, on



STARLING (*Sturnus vulgaris*).

their first migratory excursion; whilst many of the parent birds devote themselves to a second brood, or at all events have to go



STARLING VISITING NEST IN OLD WOODPECKER'S HOLE.

through the tedious process of change by moult of their entire plumage, being thus detained for one or two months from following their offspring into winter quarters. This holds good for nearly all regular passengers in Heligoland, the sole exception being the Cuckoo, which, leaving the care of hatching its egg and rearing its young to kind-hearted foster-parents, is free to go south whenever it pleases. The most striking instance of young birds preceding their parents by a month or two is furnished by Starlings (*Sturnus vulgaris*) ; young grey birds appearing here by hundreds and thousands at the latter end of June, without in any case being accompanied by a single old one, the autumnal movement of the latter commencing about the end of September, lasting through October, and occasionally till late in November."

These are the opinions of an ornithologist who has had far more opportunity for the observation of the mysteries of bird migration than any other naturalist. For fifty years he systematically noted every arrival to the island of Heligoland, where there are actually no resident birds to cause confusion, and which has a list of feathered visitors greater than the whole list of the birds of the British Islands. Nearly the whole population of Heligoland has been trained by him to observe and catch the feathered visitors to this island rock on their passage, and every important capture has passed through his hands, and a record has been kept of its age, plumage, sex, date, and the prevailing wind and weather. The late Mr. Seebohn disputed the accuracy of Herr Gatke's list, alleging the difficulty of distinguishing

the minute differences between the plumage of many birds (especially *Turdinae*) in their first spring dress and adults. But the fact that young birds do migrate half across the surface of the globe without any assistance from their parents is sufficiently astonishing, and the wonder is, not that one or two go astray, but that so many thousands succeed in finding their way alone and with no previous experience to guide them.

It is known also that birds which are bound to the extreme northern latitudes, instead of starting early on account of the longer distance, actually start some months later. They know in some mysterious way that if they arrive at their destination too soon they will find the country thickly covered with snow and the rivers still ice-bound.

Chapman notes that in Spain "there is a distinct arrival of Swallows in February (early in March many already have eggs), yet the 'through transit' of vast bodies destined perhaps to populate Lapland and Siberia—is conspicuous throughout April and even into May."

Wherever trees are found, there the Tree-creeper may be seen, creeping spirally up the trunks and branches. When stationary, the sharpest eye would with difficulty detect it at all, and when moving upwards in jerks it might be taken for a mouse. The back is mottled with different shades of brown, making it almost invisible against the weather-stained branches. Watching its progress, it suddenly disappears round the farther side, and after an interval its silvery breast and long curved beak come into view again higher up. With its

stiff tail-feathers it supports its weight while it searches the interstices of the rough bark for small insects. The nest may be found squeezed between the trunk and the bark where it has become loose, as it often is in old willow-trees. From the nature of the situation it is most curiously compressed,



NEST OF STARLING (*Sturnus vulgaris*).

even for such minute and slender forms as the Tree-creepers and their young family.

The Greenfinch is a really handsome bird, though so common and little esteemed. It is a hardy and ornamental bird for the aviary (it is too big and clumsy to show to advantage in a cage), but the worst of him is his dreadfully monotonous voice. The long-drawn and constantly repeated "Che-e-ep" in early spring is the most aggravating bird-

note I know of, the only one amongst British birds I really dislike. When nesting has fairly begun, however, the birds are very silent, and the nest in consequence escapes notice, though gardens and shrubberies are very favourite places for them to choose. The nests are well and comfortably made, and have a charm of their own, without having the special beauty of the Chaffinch's nest.

For the home of the Chaffinch is distinctly the work of an artist. Without in any way losing any useful quality—for in warmth, comfort, and durability it is second to none—in decorative effect and tasteful situation and appearance it is entitled to rank among the highest efforts of



NEST OF JACKDAW (*Corvus monedula*) CUT OUT.

bird architecture. Whether placed in the gnarled and rugged branches of the elder, or hidden among the delicate white spangles of "may" or blackthorn, it is always worth stopping to admire; still more so if the mother-bird remains on her eggs, looking at you with quiet and fearless eyes, as she will do if you move discreetly. The picture then is perfect in every way. Do not spoil it by disturbing her and robbing her of her treasures.

The northern suburbs of London and the adjacent country is the chosen home of the Hawfinch. In the numerous orchards and market-gardens in this neighbourhood it is a fairly abundant species. Unfortunately their fondness for green peas leads them into trouble, and makes them very unpopular with gardeners. In spite of the numbers which suffer from their misdeeds in this direction, it is one of the few birds which appear to be increasing in numbers and spreading into localities where it has been previously looked upon as a rarity.

I have seen numbers of the nests both in the apple- and pear-trees of orchards and in hawthorns in parks and fields. The birds are very silent and unobtrusive, but are sometimes seen while lying in wait for other birds. The enormous beak is their chief characteristic, and one by which they may be readily known. Another feature, which is only seen when in the hand, is the curious notching of the primary feathers.

The Goldfinch is too much in demand among bird-catchers ever to be a common bird near London or any other large

town. Still, a good many may be seen at times if one knows where to look for them. In one field, chiefly remarkable for its fine crop of thistles, and where the bird-catcher is not a *persona grata*, large flocks of young Goldfinches and Linnets may be seen during autumn. And there are not many sights in Nature prettier than a small flock of these elegant birds clinging to the bending thistles with expanded wings, and flying from one to another. If the time is winter, and there is a covering of snow on the ground, the beauty of the sight is still further increased. When one patch of thistles is exhausted, they fly off to another with a joyous twitter, leaving the downy seed-feathers floating in the air and strewn on the surface of the snow.

The only nest I have seen was about ten feet up the trunk of a small oak in a wood, placed between the trunk and the small leafy twigs growing out of it. In such a place they are much safer than when nesting in hedges and orchard trees. I have some reason for thinking that they nest more often than is thought at considerable heights in large trees.

The House-sparrow is, as a matter of course, abundant—extremely abundant: where is it not? In towns its presence may be tolerated, and even welcomed, but there is no doubt that in the country it does much damage. While the corn is yet green in the ear, and after it is ripe, Sparrows in flocks may be seen on their way to feast on the precious grain. Clinging to the bending ears, they strip them speedily, and break down as much as they devour. They also let the

damp and rain into the thatched roofs of stacks and cottages by pulling out the straws. Wherever food is to be found Sparrows are certain to be there, eager for their share.

Is there a good rise of May-fly on the trout stream?



NEST OF CARRION-CROW (*Corvus corone*).

In competition with the Swifts and Swallows, which gyrate on untiring wings, and sweep so gracefully to meet the gauzy flutterers above the water they have so recently left, are numerous Sparrows; despite their thick-set clumsy bodies and short wings, they too attempt the difficult feat, and even try awkwardly to pick them from the

surface. In spite of many failures they do succeed by perseverance in obtaining a share, and pick those up which are drowned and washed against the grassy banks.

Drop a crust of bread, or spill the contents of a nose-bag in the street! Before a minute has passed a group of watchful Sparrows are squabbling excitedly over the find, and chasing the first comers in the hope of their dropping a bit. Talk about the struggle for existence! Each mouthful a Sparrow eats seems to be obtained by the exercise of unrivalled energy and watchfulness. No wonder they thrive and increase and multiply! There is one period of their existence, however, during which they do some good.



NEST OF ROOK (*Corvus frugilegus*).

While rearing their young—and they have at least two, if not four, broods every year—they feed them on grubs and insects. It is only fair that this should be put to their credit, for it is apt to be overlooked.

One of their worst habits is that of ousting the House-martins from their nests, and appropriating them to their own use. The theft is invariably betrayed by the untidy ends of straws and rubbish left sticking out of the entrance-hole in straggling disorder.

I have often watched a Sparrow sitting on a roof, intently observing a pair of Martins building up their mud nest under the eaves. With the greatest interest it watches all their proceedings, chirping impudently now and then, as if to hurry up the patient builders. Presently the nest is finished, and the lining nearly in, and the Martins go off for one more feather. On coming back, they find the Sparrow has taken possession of the home they have made for their own use with so much skill and labour.

As for the ancient fable of the Martins building up the robbers by blocking up the hole with mud and leaving them to die of starvation, I simply cannot believe it. What would the Sparrows be doing while the building up was in progress and afterwards, if it was ever completed? With their strong beaks they could, with the greatest ease, demolish the mud as fast as it was brought, and break up the whole nest from inside. The nests are so fragile that a clumsy finger roughly inserted is enough to bring the whole structure to the ground. No: the story is of

a class with many others very popular a few years ago, which get repeated over and over again as gospel—"Anecdotes of Natural History," which should be taken, most of them, *cum grano salis*.

The Tree-sparrow is common, building a much neater nest in holes in apple-, willow-, and other trees. Its smaller, rounder, and browner eggs may be easily distinguished from those of the commoner species. The bird itself is somewhat of a handsome one.

Patches of furze-grown common-land around are not of great extent or very numerous. Wherever they exist there are plenty of Linnets; but these birds are not found in any abundance away from their favourite haunts, though they do nest sometimes in the hedges. In the autumn they flock to the thistles in company with Goldfinches.

The Lesser Redpole, with the Bramblefinch, is only known as a winter visitor, when flocks of these sprightly, active, restless little birds wander southwards.

The Bullfinch is abundantly found, though it is more in evidence in the autumn and winter. In the nesting season it keeps very quiet, and chooses the thickest hedges and the most retired places in the woods, and shuns notice as much as possible. In walking along the bare hedges in winter, great numbers of their nests may be seen, which have escaped observation during the leafy months of summer.

The Corn-bunting is scarce, the reason probably being, as Saunders remarks in his "Manual of British Birds," that "it is principally to be found where grain of some



ROOK (*Corvus frugilegus*) AND NEST.

kind is grown, and where arable land is turned into grazing ground the Corn-bunting is scarce or even disappears."

The Yellow-hammer, or Yellow Bunting, is common enough at all seasons. Its somewhat monotonous song, which is supposed to sound like "A little bit of bread and no cheese," is very familiar, for it is somewhat of a



NEST OF SKYLARK (*Alauda arvensis*).

roadside bird, where it may frequently be seen on the top of some small tree or bush. The dusty herbage of the roadside bank is quite as often chosen as a site for its nest as the greener and fresher field bank. It is, too, nearly as fond of furze as the Linnet.

The Reed - bunting (or Reed - sparrow) is given to

marshes and damp situations, though it is by no means restricted to reeds. In one small osier-bed (since drained) I always found one pair of birds nesting. The birds, I have thought sometimes, try to delude you as to the true position of their nest by great pretended anxiety when you are searching in quite the wrong direction. This may be only fancy on my part; but be that as it may, the nest is by no means an easy one to find.

The cock is one of our handsomest native birds. Though its colours cannot compete with the brilliance of the Kingfisher, yet it makes in its way quite as effective a picture. In its favourite and characteristic attitude, clinging to an upright stalk of reed or rush, its strongly contrasted plumage shows up so well against the riverside background, whether of green reeds rustling crisply in the summer's breeze, which rocks the bird backwards and forwards, or against the sere and yellow tints of autumn, or the cold glare of freshly fallen snow. For it is a resident, and does not fly from us at the approach of winter to warmer climes. The hen is not so boldly marked, and, as she creeps cautiously through the tangled undergrowth to feed her young, is not nearly so conspicuous.

The Starling is a typical suburban bird, where it is nearly as great a hanger-on to mankind as the common Sparrow. It finds by experience that houses and buildings are provided with all sorts of holes and corners, in chimneys, under tiles, and in gutter-pipes, which make very convenient places for nests. Here they are really quite as safe, if not

safer, than in the fields, where large numbers of them nest in holes in trees. The Starling has a bad habit of taking possession of the holes which the Woodpeckers have industriously hewn out for themselves in trees, and have also been known to oust the Swifts from their nesting-holes in buildings (*Zoologist*, June, 1899). In either case the theft is betrayed by the straws sticking untidily out of the entrance, which tell the tale to every passer-by. The young Starlings, too, in the nest have a peculiarly strong and pungent odour, which may be readily detected from a short distance by anybody familiar with the birds. On several occasions this smell, so well known, has called my attention to the nest in places which I should have passed unnoticed. The young in first plumage congregate together in small flocks, and as the summer advances these flocks join forces, till in autumn their numbers are prodigious. In the Norfolk reed-beds the damage done by their roosting in the reeds and breaking them down by their combined weight necessitates the regular employment of men to scare them off at the approach of evening.

This first plumage is unspotted, and the young birds used to be described and known as "Solitary Thrushes." Why Solitary it is difficult to imagine; it is the most inappropriate title that could possibly be given them. The Starling is not liked by fruit-growers, as it is undoubtedly fond of cherries; but against this must be set the immense amount of good it does all the remainder of the year in clearing the land of noxious insects. The grubs of the Cockchafer and Crane-

fly, or Daddy-long-legs, which do so much mischief in devouring the roots of grasses, are the favourite food. Watch a dozen Starlings running over the grass, their lustrous plumage shining in the sun, and see how busy they are in searching for these pests.

Once, while waiting at a Starling's nest in an apple-tree, a Wryneck settled on the edge of the hole and



YOUNG SKYLARK (*Alauda arvensis*).

looked in, evidently house-hunting. Before I could press the shutter the Starling, which happened to be inside, hustled her away in a great hurry, and thus lost me a chance I shall probably not get again.

The harsh scream of the Jay may be heard, and occasionally a glimpse of this fine bird may be seen; but I have not yet found a nest. It is very common in the forest, and



NIGHTJAR (*Caprimulgus europaeus*) ON UPPER BRANCH OF OAK-TREE.

in the autumn numbers of Jays spread into the surrounding country, and fill the places of those shot and trapped by keepers. The Jay, no doubt, is very fond of eggs; but I fancy that the Blackbirds and Thrushes suffer more from their depredations than any of the game birds. Keepers, however, invariably destroy all they can. The Magpie also suffers for similar misdeeds, and is in consequence generally a scarce bird where game is preserved. I have seen them sometimes even close to the town, and heard of their nesting in an orchard. But nowhere in England is the Magpie the abundant and familiar species it is in Ireland, Sweden, France, or Spain, where sometimes it seems to be the most common bird, and also the tamest.

Jackdaws are, in my opinion, more mischievous than the Jay or Magpie. I have caught them in the act of devouring young Thrushes piecemeal, and eggs of all ground-breeding birds are regular objects of food. Lapwings, when

nesting, know perfectly well what the Jackdaws are after, and if they see one quartering a field containing their nests they will drive it off. Water-hens also will mob any prowling Jackdaw, and attempt to drive it away from the neighbourhood of their nest. Last year every Lark's nest known on one farm was destroyed by Rooks, Crows, and Jackdaws.

Jackdaws are generally strictly ecclesiastical birds: but Enfield has some dissenters, for the Jackdaws here have made a gallant attempt to fill up the spire of the Wesleyan chapel by dropping sticks through the round holes near the top. When I saw the accumulation, there must have been a couple of cartloads, for the base of the spire, ten feet each way, was filled up to the height of between four and five feet. I believe it had been cleared out once before. There were no eggs, only a few dead Sparrows. I suppose, by the time they have filled up the interior level with the holes, they will think about laying.

The Carrion-crow is another marauding species, and one which is decidedly on the increase round London, where game-preserving is not very strictly carried out. I have to-day (March 12th, 1900) been up to a typical nest in a big hedgerow oak, which is to all appearance ready for eggs. (Two eggs were eventually found in this nest, and at that time there were two Crows' nests in the same tree, belonging to two pairs of birds which I have seen in the tree at the same time--a most unusual event.)

Many Water-hens' and Wild Ducks' nests have been robbed by the Crows before I could get up to photograph them. The Crows' nest is, in fact, like one of the castles of old, commanding from a height a rich lowland district, the Crows themselves being worthy representatives of the robber barons. Like them, they live by harrying periodically their weaker neighbours. From them nothing is safe. Eggs and young birds are a regular article of diet: young rabbits, partridges, pheasants, and hares are all carried off; toll is taken of all the chickens and young ducklings within reach: and, failing these, carion and insects of various sorts are devoured.

The Hooded Crow I do not remember seeing so far south.

The Rook, of course, abounds in all suburban districts, though unfortunately it now seems to be on the verge of extinction as a nesting species in London itself, the Gray's Inn rookery being the only one left.

A pleasant thing it is in spring-time to hear the familiar caws and to see the birds busily at work, repairing the old nests, damaged by the winds of winter, and making them ready for another season's tenancy. Very deep and cosy are these nests in reality, warmly lined and comfortable, though they look so rough from below.

When the bitter east winds are howling through the leafless branches, and the tapering twigs are bending in the gale like a ship's topmasts, this depth is necessary to prevent their squab young from being thrown out. As it is, some-

times after a stiff gale many young birds will be found dead on the ground below.

The Rook is a bird which is gradually deteriorating in character. For long he has been considered a most respectable member of society, a friend to the farmer during the greater part of the year, whose only fault was a liking for seed-corn, and a propensity for stealing sticks from his neighbour's nest when his back was turned, instead of honestly collecting them for himself. But of late years there has been a constant growl from game-preservers that he is acquiring an ever-increasing taste for eggs—not only for Lapwings' eggs and such-like, which would be forgiven



NEST OF NIGHTJAR (*Caprimulgus europaeus*).



NIGHTJAR (*Caprimulgus europaeus*) AND YOUNG ONE.

him, but he must have Partridges' eggs, and for such a heinous crime there is no forgiveness.

Now, the worst of it all is that it is too true ; and a pity it is, for he is a great ornament to the fields. He is the largest common bird we have left, and his presence in the rookery of ancient elms gives an added dignity to many an ancestral estate. His familiar figure would be missed, and his absence would be mourned as a personal loss by many, if sentence of death or banishment were passed upon him. That Rooks are not averse to animal food even is shown by an extraordinary account of the systematic hunting of Field-voles by Rooks in Thuringia Wald. It will be found in the October number of the *Zoologist* for 1892.

From a letter in the *Zoologist* of January, 1900, by W. Wilson, it would seem that some injustice has been done

this bird. An examination of the contents of the stomachs of dead Rooks by the Highland Agricultural Society appeared to demonstrate that the birds had lived by eating grain instead of noxious grubs and insects, and in consequence many rookeries have been destroyed. Mr. Wilson, however, goes on to say that "another point of general interest to ornithologists has been brought out here by Mr. Turnbull, B.Sc., who has examined dead Rooks where a rookery was being 'cleared out,' and found grubs and wire-worms in the birds when dissected shortly after they were killed, but grain only in those examined a day or two after being destroyed, his contention being that digestion went on after death, and that this accounted for little but grain being found in those the subject of the Highland Agricultural Society's Report. This digestion after death is worthy of attention, and tends to bring out the views most commonly held on the food of the Rook. Those forwarded to the Highland Agricultural Society were driven by rail to Edinburgh from Montrose, and time must have elapsed before they were examined."

The Raven is no longer to be found, having been for many a year driven away from most inland localities in England. Persecution has been too much for it, and it now betakes itself to the overhanging ledges of the precipitous cliffs round the coast, where it still nests in comparative safety. Enfield, however, can boast of being the last locality in Middlesex frequented by these fine birds, and can show the tree still standing on which they used to

nest. This is one of a group of magnificent elms known as the "Three Sisters," close to the New River. In countries where game preservation is not thought so much of, and where the population is more scanty, the Raven still nests in trees. Two nests I took in the south of Spain in 1897 were placed on the top of tall pine-trees, and contained five eggs apiece. This was in May; with us nidification is begun in January, and eggs are laid while snow is thick on the ground.

Among our native songsters, the Skylark ranks with the best, and abounds everywhere, on either pasture or arable land. A little later than the Thrush to begin, it even rivals that fine musician in the superb quality of its song. Rising higher and higher over the fields, it pours forth its joyous melody with a vigour and zest perfectly marvellous, until, its highest pitch being reached, it descends still singing, till, nearing the ground, it folds its wings and drops back to earth. Occasionally I have both heard and seen the Lark sing on the ground. Once in particular I well remember one singing lustily while perched on a clod of earth within a few yards of where I was hiding. It has even been known to sing at night (*Zoologist*, October, 1892).

The nest, like most of those placed on the ground, is exceedingly difficult to find. Even on almost bare ground it makes the most of some small inequality, perhaps only sheltered by one small, low plant, so that it takes a sharp eye to discover its whereabouts. Hundreds of nests are destroyed annually by Rooks, Crows, and Jackdaws, which

either find them accidentally while picking up worms or grubs, or else they systematically look for them as a regular article of diet.

The next bird on my list is of an entirely different character. The Swift practically lives in the air, wheeling round in immense circles at great heights, and dashing in erratic and never-tiring flight throughout the hours of daylight. It never seems to rest, or to alight, except to roost and to nest, for which purposes it resorts to holes in the roofs of thatched cottages, under tiles, and in holes and crevices of church towers and large buildings. Its harsh scream has earned for it in some places the name of "Jacky-screamer" or "Deviling." It is quite one of the latest to arrive of our summer visitors, and the first one to depart.



YOUNG NIGHTJARS.

They nest in some of the houses in the London Road. One in particular, whose gable-end faces the street in a narrow part, seems to accommodate several pairs on the end of the beams which support the gable. The eggs are two, sometimes three in number, and are deposited among a few straws, cemented together by the viscid saliva of the birds.

The country here is not generally favourable to the habits



YOUNG KINGFISHER (*Alcedo ispida*) SITTING ON WATER-HEN'S NEST.

of the Nightjar; but wherever bracken is found at the edges of some of the woods a few pairs may be found nesting—or rather laying, for nest-making troubles them not.

The two eggs, curiously resembling round pieces of chalk or mottled pebbles, are simply deposited on the bare ground. In such places, amid dead leaves and sticks and loose stones, they are not easily seen; and the bird herself, while incubating, is absolutely invisible to the keenest eyes, unless they knew

beforehand exactly where to look. As she sits, with puffed out and nearly closed eyelids, she resembles nothing so much as a short bit of dead lichen-covered stick. On two occasions at least I have noticed similar pieces of stick lying close to the eggs, as though the bird relied on the protective resemblance they bore to her mottled, russet-coloured plumage.

The young birds exactly resemble two lumps of dry earth or mud. Even when in the hand they appear as if they had been dipped in wet mud, which had dried on them. So much is this the case that I have felt inclined before now to dust them, to try to get some of it off. A young Nightjar in the attitude of being fed has a most extraordinary appearance, owing to the immense size of its open mouth.

The flight of the Nightjar is indescribably light and noiseless, though sometimes it has a curious habit of clapping its wings behind its back.

Quite one of the prettiest experiences with birds I have had was to see one fly up, hover over her eggs, and finally settle down on them, while I was hiding under my concealed camera not much more than a yard away. I had already photographed her four times, after carefully crawling up to her and climbing over a fence with the camera in full view and very near to the nest. She eventually hatched her young ones, and, I believe, brought them off all right. But from two other nests the birds deserted on my trying to hide up for them. They return to the same place to nest year after year—not necessarily to the same spot; but a patch

of bracken or bit of open ground in a wood is often tenanted regularly by Nightjars. I can generally find a nest, whenever I want one, by knowing where to look.

A Nightjar, when perched on a thick branch, always sits lengthwise; when on a thinner branch, however, it adapts itself to altered circumstances, and then sits across like other birds. The lengthwise attitude, however, seems to be preferred; for I notice that, if the branch be of a medium thickness, it will sit diagonally across it—that is, as near to the lengthwise position as possible. The curious churring noise only made towards evening seems to be akin to the reeling of the Grasshopper-warbler, a vibratory sort of sound, difficult to locate. It has a weird sound as the darkness deepens and the songs of other birds are hushed. It now rises and falls, sometimes appearing to be close at hand, sometimes far away. Presently the bird may be seen on the wing, skimming across the glades of the wood, over which the branches cast fantastic and grotesque shadows in the light of the moon. If by chance the bird should settle near at hand, you will be astonished at the strength and power of the note, however it may be produced. The same thing is very apparent with the Cuckoo's note. I have been sometimes perfectly astonished at the powerful vibrations made by a Cuckoo which has settled close to me—one I remember seemed to shake the tree in which it sat, a very large oak.

As Howard Saunders remarks, the Nightjar is known in every country in which it is found “by some name equivalent

to Goatsucker." This is due to one of those mistaken and utterly exploded ideas which used to be so common in natural history, fit only to rank with the metamorphosis of Barnacle geese from barnacles, and other ridiculous fables, which have been gravely described and even illustrated by professed eye-witnesses.

In the delicate markings and general colour of its plumage the Wryneck resembles the Nightjar. It is, however, a bird of very different habits, being arboreal, like the Woodpeckers, though not provided with the climbing foot of those birds, or the powerful beak and stiff, pointed tail-feathers. Its habits are somewhat different. Unable to hew out for itself



YOUNG CUCKOO (*Cuculus canorus*) IN HEDGE-SPARROW'S NEST.

(Below in an old nest is an egg and dead nestling, presumably ejected by the young Cuckoo).



YOUNG CUCKOO FED BY HEDGE-SPARROW.

a hole for its nest, it has to fall back upon some natural hollow in which to deposit its white eggs.

The Green Woodpecker is the largest representative of a class of birds extraordinarily well fitted in every detail for the life they are destined to lead. They are, in fact, very highly specialised, even among birds, which show peculiar proofs of adaptability to all sorts and conditions of life.

There is not a condition in the life of Nature's beings that some bird cannot adapt itself to, even to burrowing holes under the earth, and, more wonderful still, to boring tunnels in the hard and solid wood of large trees in which the sitting female can incubate her eggs free from danger and molestation. In almost every case of birds nesting in holes two facts are very apparent. One is, that the eggs are almost invariably white, or white inconspicuously spotted

with red, the exceptions being the blue eggs of Starling and Jackdaw; and the other is, that the birds themselves are generally of brilliant plumage in both sexes. A bird sitting on eggs, if brilliantly coloured or conspicuously marked, is of course much safer out of sight down a hole;



YOUNG CUCKOO FED BY HEDGE-SPARROW.

and the fact that all the brilliantly plumaged hen-birds on the British List nest in covered situations, with a few exceptions among the ground-building birds, seems to indicate that they are perfectly aware of the fact. The exceptions to this rule take other steps to the same end.

Knowing that they are conspicuous, instead of sitting close, they leave their eggs at the slightest suspicion of danger, warned by their mates, which keep watch over them. But their eggs, which would be in danger if white, like those of birds nesting in holes, are invariably exceedingly difficult to see, being in colour and markings so like the surrounding ground as to be indistinguishable. Birds which sit closely on an open nest are always so protectively coloured as to be very inconspicuous.

To return to the Woodpeckers. The whole structure of their bodies in every particular is admirably adapted to their peculiar way of life. The feet are very powerful: and in place of the toes in front and one behind, as is usual with birds which merely grasp their perch, they have two hind toes and two front ones. This gives the birds a better purchase in grasping the inequalities of the rough bark, and in supporting themselves in an upright attitude. Additional support is further provided by the long, stiff, incurved tail-feathers, which serve as a fulcrum. The beak is like a natural pickaxe, with which the bird, while grasping firmly with its strong feet, can give the most tremendous blows, sufficient not only to dislodge large pieces of bark in searching after insects, but to dig grubs and caterpillars out of the solid wood. The nest-hole is constructed by boring a perfectly circular hole into the tree, which turns at right angles to a depth of several inches. The hollow is then slightly enlarged, and the glossy white eggs laid on the chips at the bottom.

The tongue is perhaps the most extraordinary feature

in the Woodpecker, being capable of protrusion to the extent of four inches. The tip is sharply pointed and barbed, and covered with a glutinous secretion. The anatomical peculiarities of this curious tongue are worth describing.



YOUNG BARN-OWL (*Stryx flammea*) IN DOWN.

Instead of the root of the tongue being fixed to the throat, the tongue itself goes some distance down the throat, and then divides into two tendinous processes, which rise again and curve round the head, one on each side, and are firmly attached to the frontal bone, near the base of the upper

mandible of the beak. The length of a specimen which I have had in spirits for twenty years is 8 inches, including the tendinous processes, the tongue proper being $4\frac{1}{2}$ inches.



BARN OWL (*Stryx flammea*).

The length of the whole bird from beak to tail is only 12·5 inches.

All three Woodpeckers are fairly common round London, the Lesser Spotted being on the whole the most abundant. The curious drumming noise made by Woodpeckers in spring-time may be often heard, as they sit on a dead bough and hammer it with their beak with inconceivable rapidity. The effect is

a curious drumming, vibratory noise, which may be heard for a long distance, and is very difficult to localise. I once followed the sound for a long way, thinking at every step the bird was in the next tree, and then the next. At last it flew out quite fifty yards from where I had thought it to be. It is supposed to be a call-note between the sexes before pairing, and is only heard in spring-time.

Young Woodpeckers, before leaving the nest for good, run in and out of their hole and climb the trunk as nimbly as the old birds.

In spite of the persecution it undergoes, in consequence of its brilliant plumage, the Kingfisher still holds its own, and is, I firmly believe, as common as it was thirty years ago. Hundreds are shot, in spite of the Bird Protection Acts, and more still are netted in the autumn, when there seems to be a decided migratory movement among them. Kingfishers then are frequently met with in places where at other seasons you never expect to see them. Bird-catchers catch them when netting the ditches and small streams for Blackbirds and Thrushes; I have had four brought to me alive in the course of one week. Some I have bought, and after keeping them a few days have released them at the bottom of my garden, along which passes the New River. One of these birds took Sticklebacks out of a soup-plate after the first day, but they never live long in captivity.

They nest here regularly in certain places. In the bank of some small brook the Kingfisher makes a hole, or finds a rat-hole ready made, at the end of which it enlarges a small cavity. Here the minute bones of the small fish on which she feeds are disgorged, and on these she lays her shining white eggs, almost globular in form. I have occasionally seen the bird hover like a little Kestrel and plunge into the water after its food; but its usual tactics are to sit motionless on some overhanging spray or protruding stump, on the watch for any small fish or aquatic insect. On these it drops suddenly,



"CASTINGS" OF BARN-OWL.

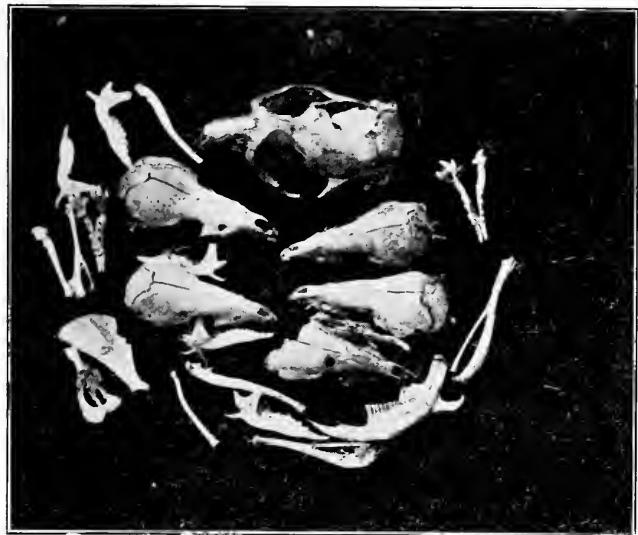
and generally succeeds in making a capture. It then resumes its perch, or sometimes another one near at hand, with the prey—if a fish—crosswise in its beak, and it is only swallowed after being repeatedly banged violently against its perch.

By watching these lovely birds, it is possible to find out their favourite perches along a length of stream. To these they fly regularly, and visit one after the other. At one such perch, a thin rootlet sticking out from a bank, I watched at close quarters an adult Kingfisher this year for a long time. He had in his beak a small fish, apparently from the shape a very young Jack. Just above the bank was a hole, from which apparently a brood of young Kingfishers had recently flown, and I was doubtful if they were nesting again, either in the same place or elsewhere near at hand. Momentarily I expected to see it fly into some hole or other, and watched it closely, hoping thereby to discover its nest. Finally, however, after waiting a considerable time, it swallowed the fish itself, head foremost, after first taking it by the tail-end in its beak and swinging its head round viciously

against the twig it sat on. Every bone in the fish's body must have been smashed by the repeated blows. The movements of this bird, as of others I have watched, were very jerky, and its attitude the reverse of graceful.

A regular perch in another stream was a tree-stump lying across the water, with several projecting arms. In the middle was a Water-hen's extra nest. This made an excellent station for a pair of Kingfishers—or perhaps I should say two Kingfishers, young birds of the year, fully fledged and quite capable of looking after themselves. Repeatedly, during a day spent in ambush squatting in a small elder-bush, concealed by twigs and nettles, these two birds returned to the place, sometimes sitting on the stump, sometimes on the outer sticks of the Water-hen's nest. Sometimes one only

could be seen, but generally both of them were in view at the same time. Many plunges were made after sticklebacks while we watched, and never once did they miss their prey.



BONES AND SKULLS FROM "CASTINGS" OF BARN-OWL.

(The five shrews' skulls were from one "casting.")

TAWNY OWL (*Syrnium aluco*).

I once saw a Kingfisher hotly pursued by a Sparrow-hawk. Both birds flashed past me at topmost speed while fly-fishing in a small Lincolnshire stream. There was but a small space between them, and I could mark the bright yellow eyes of the Hawk, and the feet among the breast-feathers ready to strike, but a thick and high hedge prevented me from seeing the end of the chase. There is no doubt,

however, that, unless the Kingfisher could take shelter under a bank or drop into the water, it must have been taken. They are not birds capable of prolonged effort in flight, though for a short distance they travel very quickly.

One of the most curious habits among birds must surely be that which characterises the Cuckoo, of laying its eggs in the nests of other birds, and thereby ridding itself of the burden of bringing up its offspring. Other birds show such devotion to their young—love of offspring being so predominant in their natures that life itself is freely sacrificed in their defence—that this callousness on the part of the Cuckoo is very abnormal and very difficult to account for.

The South European form, the Greater Spotted Cuckoo, also practises the same parasitical custom, but restricts



KESTREL (*Falco tinnunculus*) AND NEST.

itself almost exclusively to laying in the nest of the Magpie. The American Cuckoo, however, builds a nest and rears its own progeny like other birds.

The sound of the well-known and familiar note of our bird is always eagerly expected, as a welcome harbinger of spring. It sometimes happens that numbers of Cuckoos arrive simultaneously, as if they travelled in large flocks, and that their mocking cry of "Cuckoo" is heard in all directions, and the birds conspicuously seen in numbers about the fields and hedgerow trees, where the day before there was not one to be heard or seen.

The nests particularly favoured by them seem to be those of the Hedge-sparrow, Meadow-pipit, Pied Wagtail, and Robin, and I have seen the egg in nests of the Willow-wren and Redstart. The latter nest was, as usual with the Redstart, in a very small hole in a cherry-tree, into which it was perfectly impossible for the Cuckoo herself to have entered. In such cases it is supposed that the egg is deposited on the ground and then placed in position by the beak.

Young Cuckoos are gifted with most inordinate and insatiable appetites, and grow apace. To make room for their unwieldy bodies, they have a most objectionable habit of ejecting the other and rightful occupants of the nest. The illustration on p. 133 shows the details of one such tragedy, in a more complete way than would be possible, as a rule. Here, however, the accidental circumstance of a second old nest immediately below having caught the ejected nestling and an egg enables me to show a complete record. The



FRITH.

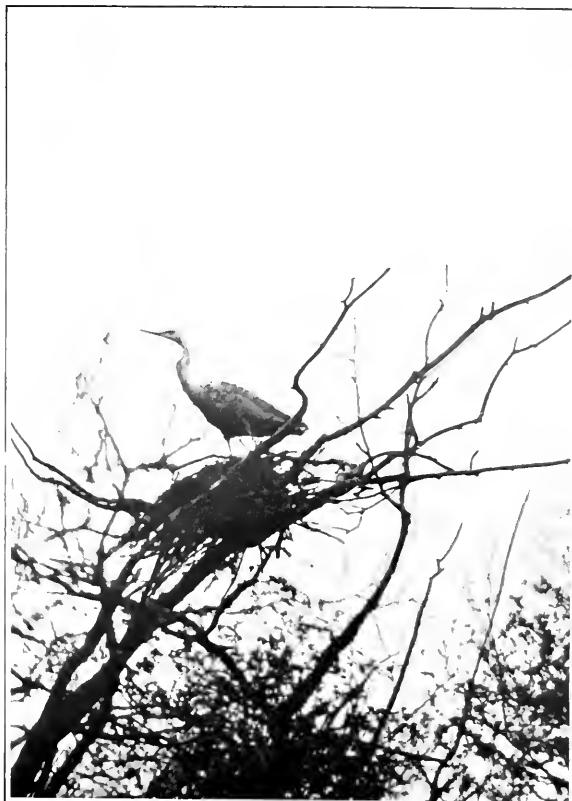
SPARROW HAWK,
(*Accipiter Nisus.*)

little monster above, characteristically enough, has its mouth wide open, screeching for more food. The nest was that of a Hedge-sparrow, placed in the very centre of a variegated holly-bush.

The foster-parents show the greatest attention to the usurper long after it has left the nest, and may sometimes be seen busily feeding it

when it is capable of flight, and is many times bigger than the two of them put together.

The Barn-owl, though one of a persecuted race, still holds its own. In 1901 a pair built in the eaves of an unoccupied house in a side street. Though the united hissings and snorings attracted attention of a hostile character from some persons who should have known better, the nocturnal family were luckily protected by the inhabitants of the neighbouring



HERON (*Ardea cinerea*) AND NEST.



HERON (*Ardea cinerea*), RICHMOND PARK HERONRY.

house, and with the exception of two, which fell from the nest, the brood got off safely. The house has since been unfortunately let, and the hole carefully boarded up by the new tenant, because of his children, as he told me! I never myself knew of an Owl eating children, but I suppose he thought he would be on the safe side. On another occasion I was summoned by a breathless choir-boy one Sunday evening to come at once to the church, as some Owls were in the roof. There I found parson, organist, and choir gazing up at a small hole in the oak panelling of the chancel roof, at the imminent risk of a crack in the neck. From this hole it appeared that an Owl had appeared during the service. Eventually it was agreed, on my suggestion, that as they had taken sanctuary in the church

they should be allowed to remain unmolested. There, accordingly, I hope they still abide in safety.

Occasionally, when riding home in the gloaming, I have seen a ghostly form fly over the fields on silent wing, and the "Whoo-whoo" of the Tawny Owl may be often heard after nightfall. Sometimes I find one resting in the



NEST OF WILD DUCK (*Anas bosca*).

cavity of an ancient oak, up whose trunk I have scrambled inside like a chimney-sweep. Some castings taken from the hollow were full of the glittering wing-cases of beetles. The Tawny Owl breeds here regularly in some numbers, but this particular hole seems to be only used for resting in during the day, and I have never found more than one

bird in it. There is no doubt that there would be more of these two species if it were not for that most iniquitous of traps—the pole-trap.

On a keeper's gallows near here are nailed up three Barn-owls, one Tawny Owl, and two Kestrels, all of



NEST OF WOOD-PIGEON (*Columba palumbus*).

them victims of a pole-trap erected outside between two large woods. Now, all of these birds are absolutely harmless to game, and of the greatest possible use to the farmer.

The late Mr. Cordeaux describes the barbarity of the pole-trap with such vivid eloquence that I should like to

bring his words before every game-preserved in the kingdom : “ The Owls (Short-eared Owls) have been exterminated by the keepers with their deadly pole-traps—a cruel form of bird murder which no humane person would tolerate or adopt. . . . The useful Barn-owl, too, has been ruthlessly destroyed whenever opportunities offered in this same cruel fashion. Noiselessly across the waste in the twilight, like a flitting phantom, comes the soft-winged Owl, and seeing, as if placed ready for his use, a post of vantage from which he may mark each stealthy movement of the mischievous Field-vole, stays his flight to settle on the treacherous perch ; and then during all the long sad night—and too often, we fear, through the succeeding day—with splintered bone protruding through smashed flesh and torn tendon, hangs suspended in supreme agony, gibbeted head downwards till death puts an end to his sufferings. Well may we ask, Can all the game-preserving in the world justify this ignorant and needless wrong ? ”

Owls and other raptorial birds eject the indigestible parts of their prey in the form of pellets, so that it is perfectly easy to show exactly on what they feed. On putting the castings of a Barn-owl into warm water, you find bones of mice with their skulls embedded in the skin. Out of bushels of these castings taken from hollow trees inhabited by Owls for many years, not the slightest trace of the remains of any game bird is to be found. The few bird-remains will be Sparrows’ skulls. The Long-

eared Owl is the only species which may perhaps be suspected of occasionally taking young Pheasants, but I cannot help thinking that its opportunities in this direction are very few and far between.

The Kestrel, hanging on suspended wings over the fields mouse-hunting, is not at all an uncommon sight, and is one which I frequently enjoy. These birds make no nest for themselves, but make use of an old Wood-pigeon's, Crow's, or Squirrel's nest. One found two years ago was on the top of an ash-tree, and the five eggs reposed on a comfortable bed of broken-up castings of mouse fur and bones, among which I detected only one bird's wing, that of a hen Blackbird. And yet this bird is killed as vermin by nine keepers out of ten.

Another nest was found immediately outside the town, in an old Crow's nest high up in an immense elm. It was only found the day before the young left it. For four days a friend and myself lay in wait with cameras pointed at two young chickens tethered within sight of the nest. On the first day the hen Kestrel hovered immediately over the unconscious chickens; but just as she appeared ready for the fatal stoop, she detected me crouching behind a big tree and sheered off. Though we tried different places for the bait and changed our hiding-places, it was all to no avail. One whole day we spent on an overhanging branch of a neighbouring tree, well hidden, as we thought, by the surrounding leaves, helped out by cut-down branches. But though we were unsuccessful in these attempts to photograph, we were



TURRITLOVE (*Turtur communis*) AND NEST.

able to see a good deal of the birds, watching them through our glasses, both on trees and on the ground.

Once I saw two of the young birds perched on the goal-posts of a football ground, one at each end. In the same field were also a family of young Tawny Owls with



NEST OF PARTRIDGE (*Perdix cinerea*).

their parents. One evening the whole five were flying round us, as my companion, crouching with me behind a tree-trunk, gave a capital imitation of the note. I am myself no good at imitating the notes of birds; but he, by blowing into his clasped and hollowed hands between the thumbs, can produce the "Whoo-whoo" to perfection.

The first attempt brought them from a distant tree, till they settled just over our heads, where we could see their forms by the moonlight against the sky.

The gallant little Sparrow-hawk is not nearly so common as the Kestrel, and I have not seen a nest nearer than Epping Forest. Many are brought to me in the autumn by bird-catchers, which have been caught in the act of attacking their call-birds. I think the majority of them are taken in the neighbourhood of Northaw. Occasionally the bird-catchers take Kestrels in the same way. One day I had a beautiful little cock Kestrel brought to me. To save it from the fate of being killed and set up in a public-house bar, which is what its captor purposed to do with it, if I



HEN PHEASANT (*Phasianus colchicus*) ON NEST.

did not buy it, I gave him what he asked, took it to the door, and released it before his eyes, to his great indignation and disgust. That was the second I had restored to liberty, and gladly I watched its flight, and rejoiced at its narrow escape from the hideous fate in store for it.

Herons, within the memory of at least one inhabitant,



NEST OF PHEASANT (*Phasianus colchicus*).

used to nest on the island at Bush Hill Park. Nowadays the nearest heronries are the well-known ones at Wanstead Park and Richmond Park. At the former there are at least sixty pairs of these birds nesting on the island in the lake, in company with Rooks. At Richmond there are about a dozen nests on some large oaks in one of the enclosures.

The Heron does not always, however, nest on trees, where, to tell the truth, he seems somewhat out of place: for in Holland I have seen it nesting among the reeds, in just the same sort of a place as that chosen by Purple Herons, except that, if possible, it was more difficult of access. For, in spite of every effort, I failed in my attempts to photograph the nests which contained young birds. The water was very deep, almost up to my neck, and the bottom exceedingly soft and treacherous, and the six exposures I made, after an infinity of exertion and trouble, were all failures.

But though the Heron no longer nests with us, it may frequently be seen following its vocation as a fisher along the brooks and ponds, or flying over to some more distant feeding-place with slow and dignified flaps of its great rounded wings.

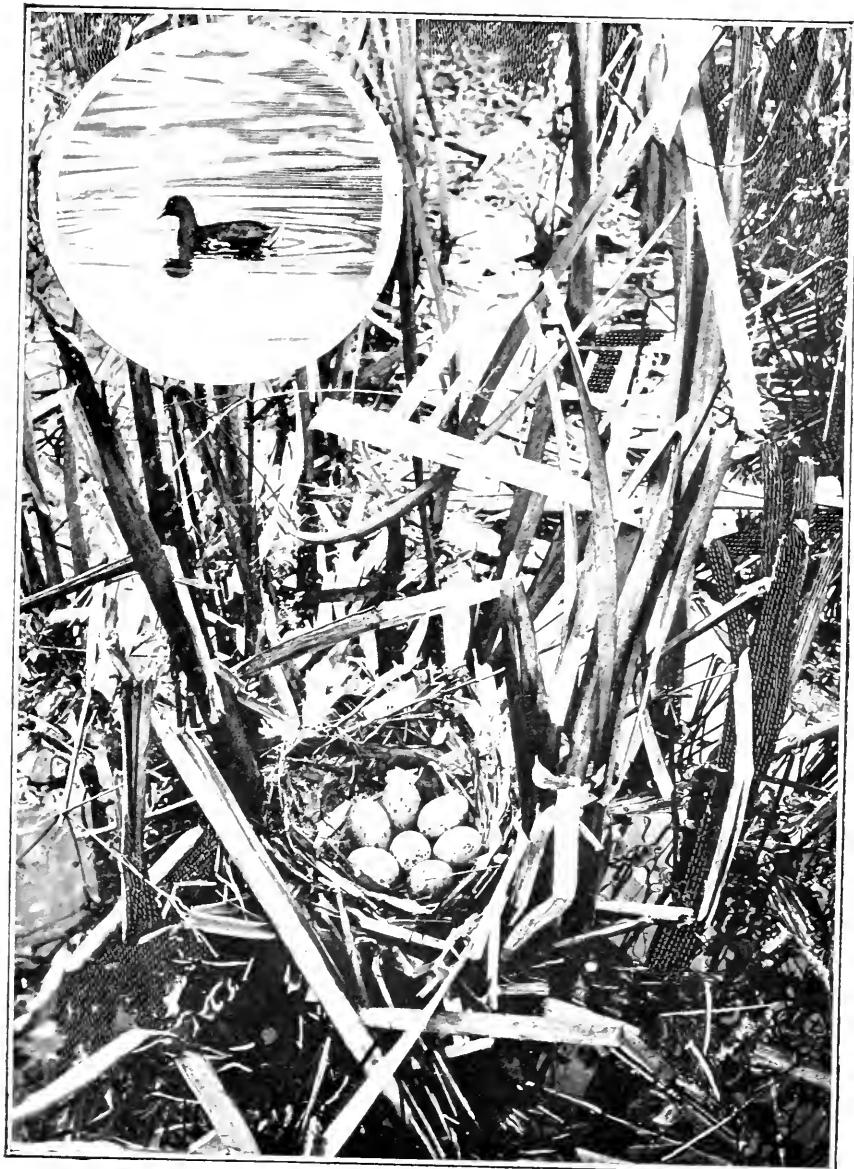
Once, while hidden under a spreading tree waiting for Water-hens, a Heron unexpectedly perched on the extreme summit of a dead tree, exactly opposite my hiding-place. Creeping forth to clear the branches overhead, I just succeeded in focussing the bird in a splendid position, when its keen sight detected my presence. The suddenness with which it took its departure before I could secure the photograph left the branch on which it had perched in violent vibration for some time afterwards. On my next visit to the place the branch was missing, as though the bird had perched once again and broken it. As the spot was, I knew, a regular resort for Herons, I paid several early visits before daybreak, hoping that this particular tree was

used regularly as a look-out station before descending to the water, which is very shut in by trees all round. Never again, however, was I favoured with another chance.

Though the Teal may occasionally be met with in winter, the Wild Duck is the only representative of the family which nests. In the summer months it is a common thing to find its nest, or to see the old duck, followed two and two by her numerous family. To these she is a devoted mother. In the event of danger the young ones scatter, hiding in any cranny or hole, while she flutters, apparently wounded and helpless, in the heroic attempt to distract attention from her brood.

The nest is sometimes a considerable distance from water. I have seen one in the middle of a field, quite a hundred yards away from the water; another was hidden under a furze-bush, and contained eleven eggs. These were safely hatched, and the resulting ducklings afterwards seen on several occasions with their mother on a small brook about eighty yards from the nest. Many nests, though carefully and artfully hidden under overhanging brambles and luxuriant nettles and long grass, have been nevertheless discovered by the Carrion-crows and robbed of every egg.

The Wood-pigeon flourishes exceedingly in all the woods around, and nests abundantly not only in the trees, but less often in the tall hedgerows. It has even within this last ten years invaded London itself, numbers nesting in all the parks and in many of the squares and gardens. In



WATER-HEN (*Gallinula chloropus*) AND NEST.

these unlikely localities it may often be seen sitting on its scanty nest, only a few feet above the passing throng, of whom it takes not the slightest notice. It is very extraordinary, for one who knows the wary habits of this bird in more secluded places, to watch it boldly feeding with tame Pigeons and Sparrows, and rivalling these *habitues* of Cockneydom in audacity. It will come readily within a foot or two if you throw food to it. The nest does not rank very high as a specimen of bird architecture. A rude and open platform of sticks, through which the eggs may be readily seen from below, suffices for the purpose. I have found Wood-pigeons very shy at the nest, and, however carefully hidden, have not succeeded in photographing the sitting bird. Two attempts this year failed, and in both cases the birds deserted their eggs.

One nest was on the top of a tall rose-brier in a small wood, and the camera was fastened to the branches of an adjacent oak-tree and well hidden with leaves, while I retired with a long tube to the shelter of some thick bushes, where I was perfectly concealed from view. Here I waited nearly the whole day; and though several times the birds could be heard in the surrounding trees, sometimes very near to the nest, yet they never visited it again.

While waiting, the excited clucking of a hen Partridge attracted my attention, and presently, while lying motionless full length on the ground, a large brood of young Partridges, only about a day old, came running up two and two, followed by their mother, a Red-legged Partridge, in a great state of

agitation. They never saw me, though the whole family almost ran over my feet. They had evidently been alarmed by some haymakers in the next field, just over the hedge. None of these, either, had the slightest idea of my presence, though they were working for hours only a few yards away. In the same clump of bushes behind the Wood-pigeon's nest was also a Turtle-dove's nest and a Bullfinch's nest, both with young, while a little farther down was a Goldfinch's nest with four eggs, and a Nightjar brooding over two young ones.

After the departure of the Partridges a friendly Robin came and inspected me, and accepted an invitation to share my lunch. Perching on the camera-case, it hopped down and ate all the crumbs thrown to it, constantly coming back for more throughout the day. A Turtle-dove preened its feathers hard by, while Thrushes and Bullfinches flitted in and out of the bushes and hopped all round me. Besides all these, a family party of little brown Wrens busily searched the bushes immediately in front of my face, till I expected them to perch on my head and search my pockets for food. One of them was certainly within six inches of my nose, and a Thrush came almost as near. The Wrens simply ignored me altogether, treating me as a piece of a tree or an inanimate log.

But though the Wood-pigeon is shy, the Turtle-dove is still more so, and is the only bird I have known to desert her nest, and abandon her helpless young ones to die miserably of starvation, because I have hidden myself near in order



LAPWING (*Vanellus cristatus*).

to photograph them. Turtle-doves are very abundant, and after the spring arrival their deep "Tur-tur" may be heard in every direction. They nest in all the tall old-fashioned hedges so common about here. The nest is even slighter and ruder, and of course much smaller, than the Wood-pigeon's. But this very rudeness of construction only serves to enhance the beauty of the two pearly white eggs reposing side by side on the network of brown sticks. It is a nest which has a great charm about it, somehow.

The Stock-dove is the most uncommon representative of the family, but may be seen here and there. Unlike the others, it nests in hollow trees.

The Partridge is fairly plentiful for so near to London. In some roadside fields it may be heard or seen almost at any time. It seems, in fact, like the Lapwing, to have a

strong predilection for certain favoured localities, though perhaps not to the extent that those birds undoubtedly have. Some peculiarity of food procurable is probably the secret of it, and in connection with this I have been told that Dutch clover has a great attraction for Partridges, and that fields containing any are always sure finds for them.



NEST OF LAPWING (*Vanellus cristatus*).

A hen Partridge, while sitting, is a good example of protective coloration. It is almost impossible to distinguish her crouching form amidst the thick growth of grass and hedgeside vegetation. She seems to burrow into the very heart of a clump of grass or dead bracken, without leaving a trace or mark of her presence. If approached quietly, she



LAPWING (*Vanellus cristatus*) SITTING.

will only crouch closer and remain motionless, though keenly observant all the while of every movement on your part.

The quiet heroism shown by birds while incubating or brooding over their young is very touching. The slightest noise or rustle may mean some cruel and ruthless enemy: yet they never move, though it is so easy for them to spring up and fly away. But unless you blunder on to them with sudden noise and crash of broken branches, they will remain sooner than betray the whereabouts of their nest.

The hen Pheasant is another example of the protectively coloured and close-sitting bird. One was almost trodden on before I saw the markings on her russet plumage hidden among the dried grasses under my feet. After photographing her from four different positions, she only left her eggs eventually on my attempting to pull up by the roots some of the grass which hid her from view: and even then, instead of flying off, she ran towards me with all her feathers fluffed out, hissing like an angry goose. The Pheasant will

sometimes cover her eggs over on leaving them, as if she knew that they would be readily seen by their numerous enemies without some concealment.

All these gallinaceous birds show great pugnacity in the pairing season. On the Continent, where ideas of sport differ from ours, advantage is taken of this in shooting them to a decoy-bird.

The Corn-crake, though numerous in the Lea Valley, does not commonly occur elsewhere, and I do not often hear it, except in the marshes. A pair frequented a meadow at Winchmore Hill in 1901, but no nest was found. Nor have I myself seen the Water-rail.

The Coot frequents a pond in the neighbourhood, and nests there sometimes, but irregularly. In 1901 a thorough search was made by wading all over the pond among the



YOUNG LAPWING (*Vanellus cristatus*) CROUCHING.

reeds, but no trace of the birds could be seen, nor any nests but Water-hens' nests found.

The Water-hen—a name which always seems to be so much more appropriate than Moor-hen—is a universally common suburban species. It is even found abundantly in a perfectly wild state in most of the London parks. In such localities, like the Wood-pigeon, it lays aside its usual timidity, and feeds boldly with the other wildfowl when fed by visitors, and by its presence adds very much to the interest of the many lakes—like the one in St. James's Park, the Serpentine, and others.

Though such an aquatic species, its feet are not webbed, and it always appears to swim, not exactly with difficulty, but with more or less exertion. The long toes seem to be better adapted for running over the broad surface of floating lily-leaves than for swimming. Much of its time is spent on land, exploring ditches and threading the long herbage which grows in rank abundance in damp and marshy situations.

In its habits there is a curious mingling of boldness and extreme timidity. It will build its nest perfectly openly in a roadside pond, and yet its presence is often unsuspected by the great majority of the passers-by. At the approach of a脚步 it slips noiselessly from the nest, barely making a ripple, and either hides under the bank or among the reeds or rushes. Failing any hiding-place of this kind, it will dive and hold on to the weeds at the bottom, only putting up the tip of its beak to breathe till the danger is

past. Its young are equally adepts at hiding from the moment they are well out of the egg. They will crouch and hide in any hole and cranny, and remain perfectly motionless until told by the parent-bird that the coast is clear. One I caught, not more than a day or two old, on being released, dived under some crowfoot in shallow water, keeping its head under so long that to save its life I fished it out again. Then, replacing it in the water, I took out



RINGED PLOVER (*Egialitis hiaticula*), PHOTOGRAPHED AT ENFIELD
SEWAGE-FARM.

my watch and timed it while it dived again, and found it could remain perfectly submerged for sixty seconds. At the end of this time it came up, gasping for breath, but dived again directly afterwards.

Several broods are hatched during the summer, and the half-grown young of the first will assist in feeding the freshly hatched young of the second brood. To accommodate the young birds, the parents generally make a second nest. This is often composed of green weeds, built up in shallow water

and perfectly exposed to view; and on this they will brood over their young. Sometimes the second nest is made of sticks, placed athwart a fallen branch or tree; and these are often of such a length and thickness as to cause surprise at the birds being able to manipulate them.

The hours I have spent trying to photograph Water-hens have been generally wasted. Hiding up at one which seemed to be well placed for the purpose, though I was carefully hidden under a thick bush, one of the birds quickly found me out. Hearing a slight rustle behind me, I turned cautiously, and she flew away from close behind me. As there was no other hiding-place within reach, I climbed a tree, and sat there. After a time—comparatively short, perhaps an hour—one of them swam out from round the corner, and proceeded straight to the nest, immediately below me. This should have resulted in a successful photograph, but for some stupid mistake in arranging the camera. On trying the same plan again, however, the birds must have seen me descending, for they refused to approach a second time, though I waited patiently for hours. Finally I was obliged to give up any further attempt, for my hiding-place was discovered by some boys. Unfortunately the road was near, and one of them on their way home from school “spotted” me up the tree while they were all looking over the fence for some mischief to do. I heard one say, “There’s a rabbit!” and another, “There’s a man up a tree!” “I can see his ears move!”—that must have been the rabbit’s, I presume. Then they saw my bicycle on the ground, and

proceeded to shout and throw stones at me, and finally climbed over the fence to meddle with the bicycle. I was eventually obliged to show myself and descend to drive them away; and after all the uproar it was not worth while starting again. I had already been up the tree about five hours. It was probably as well that I could not catch any of the young rascals.

The Golden Plover is only a winter visitor to the marshes in hard weather—wildfowl weather—and seems to be decreasing in numbers; but the Lapwing is a resident all the year round. Large flocks of these birds may be seen during the winter in the marshes and cabbage-fields, but very early in the year they pair, and resort to certain fields in which they are accustomed to nest. Their characteristic flight, as, with rounded wings, they now rise in the air and now swoop down almost to the ground, uttering their wild, plaintive cry, “Pee-weet, weet-a-weet,” adds a great charm to the landscape, and enlivens many a bare expanse of fallow and moor. From the note is derived not only the English name “Peewit,” but the Dutch name “Kievit,” and also the French “Dix-huit.”

The eggs may be readily found with a little practice, but an unaccustomed eye has some difficulty in seeing them, even when pointed out. Both sexes being of very conspicuous plumage, and the nests being on open ground, they are very shy while breeding, and leave their nests as soon as a stranger approaches within two hundred or three hundred yards. Farm-labourers, however, do not excite

much alarm as they go about their daily work. The male birds keep strict watch, and give the alarm to the sitting females. These never rise direct from the eggs, but run some distance before taking flight.

If at your approach both birds wheel around with loud outcries, and perhaps tumble to the ground as though injured, or fly immediately over your head, you may depend upon it that they have young ones hiding among the grass. If they have eggs, they fly right away. If now you hide up in some ditch or convenient bush and watch, the bird which first appears with wailing cries and tumbling flight is the cock. It is no use watching him: his duty is to humbug you; and if you do not know his tricks, he will do it very cleverly.

If you pay too much attention to him, you may miss seeing the hen, which will fly silently and quietly low down, and settle in the farther corner of the field, standing at first perfectly motionless for some time. I think that generally for the first few yards the direction in which she runs will be likely to point to the nest, but it is very difficult to say with certainty. Anyway, after a yard or two she will stop and pretend to feed and preen herself, and then start off in another direction. She will then run about in an apparently aimless fashion, as if thinking of anything rather than sitting on eggs: but always, in the long-run, she will approach the nest by slow degrees.

It is very pretty to see her daintily tripping over the rough ground, now stopping to pick up an insect, now



LITTLE GREEBE (*Podiceps fluviatilis*) ON FLOATING NEST
IN ST. JAMES'S PARK.

standing motionless, as if listening; then, stretching her wings, running nimbly in the opposite direction. Sometimes she will be almost hidden from sight in the furrows, and her movements can only be traced by her erect crest. Then perhaps she will fly off to another part of the field, and repeat the whole performance over again. Now and then she will stand on some molehill or little elevation facing your hiding-place; then the snow-white breast and black collar are very conspicuous against the grass. (This black collar in the hen has a white patch in the centre.) Even when, after endless deviations and precautions, she does eventually reach the nest, she will run up and down and round and round, as if nothing was there, many times before actually settling on her eggs.

Then, if you have cunningly arranged your camera, and covered it up carefully with clods of earth and tufts of grass, and set the shutter, you can pull the long string provided to release it: and you *may* get your photograph, or you may not. I have known the bird time after time spring up at the click of the shutter, either in time to escape altogether or to give only a blur and flash of wings.

The freshly hatched young birds seem to leave the nest as soon as they are dry, and do not return to it. They can not only run nimbly after their mother, and hide when danger threatens, but they can swim, like young Water-hens, without any doubt or hesitation. I fancy they must drink a good deal. A young Lapwing crouching in the grass is curiously inconspicuous. I have often found one, and then, having taken my eyes off it for a moment, have been unable to see it again for a considerable time.

Mention has already been made of the sewage-farm as attracting wading-birds to its tanks and filter-beds. Doubtless on migration these birds, when passing over at night, have been attracted by the gleaming pools, and on alighting have found plenty of food and shelter, until they have regularly visited such a congenial spot. No doubt a similar state of things would be found to exist in other sewage-farms: but it is very interesting to find such birds at all so near London—in fact, within the London postal district; and more interesting still to find them nesting. In 1901 I was able to communicate to the *Field* and the *Zoologist* an account of the nesting of the Ringed Plover at the Enfield sewage-farm.

I had several times watched small numbers of Dunlins and Ringed Plovers through the winter, but a few of the latter lingered on until the summer. At last, one day a pair were noticed which, by their behaviour, were unmistakably nesting: but unable to find anything, I feared that the eggs had been destroyed by a harrow, which was at work over the ground chiefly haunted by them. Being about to go abroad, I was unable to continue the search, but the superintendent, a good naturalist, kindly undertook to keep his eye on them. On my return he told me he had caught and handled two young Ringed Plovers in down, which had got into one of his carriers, and were unable to extricate themselves until he came to the rescue. This places the fact of their having nested beyond a doubt.

The sight of these daintiest of birds tripping over the oozy margins of the pools and wading in search of food was a great treat, and one day I was actually able to photograph them while so employed. With them were sometimes a few Redshanks, which also remained on the farm throughout the summer, but apparently, from their actions, did not nest; but I often enjoyed their wild note and the sight of them feeding. Knots, Curlews, and Green Sandpipers may also be frequently observed.

Snipe are extremely common here during the winter months, and in 1901 a pair nested. For daily one of them used to "drum" overhead: but hours of searching up to my knees in liquid sewage failed to discover the nest—the coarse, rank vegetation was too thick.

During a short spell of frost and snow one January, I spent five days in the attempt to photograph a Snipe on the ground. For five hours each day I sat on the snow covered over with a sheet, in the middle of a flooded field. Lapwings were very numerous, and sometimes came rather close, and Snipe were constantly seen flying over. Several were on the ground in front of me for a considerable time: but the dim light of a winter's day was not enough to



LITTLE GREBE (*Podiceps fluviatilis*).

distinguish them in the photograph from the muddy ground on which they sat, and the photographs were of no practical use.

Wild Geese may often be seen flying over in their accustomed V-shaped formation during the winter months.

Black-headed Gulls frequent occasionally not only the sewage-farm, but also an artificially flooded pond made for skating. One day I saw a flock of quite a hundred birds flying about and settling on the ice. Every now and then the Gulls were driven off by a Carrion-crow which seemed to resent their presence, but after wheeling round they soon returned to the spot.

The Dabchick, or Little Grebe, nests occasionally in the various ponds, and I have been interested in watching the quaint actions of this diminutive diver, which, like the Wood-pigeon and the Water-hen, has taken to nesting regularly in the London parks. It is really a great deal more safe in the heart of London than anywhere else: for these birds are carefully protected, and a great deal of interest is taken in them, so that they do not stand much chance



LITTLE GREBE (*Podiceps fluviatilis*) FEEDING ITS YOUNG.

of coming to harm. Two whole days spent opposite their nest in St. James's Park were very enjoyable, and resulted in some good photographs.

Now that the Great Crested Grebe nests in Richmond Park, perhaps we may indulge in the hope that these most stately and ornamental of all water-birds will also establish themselves in one of the London parks, where they would be heartily welcomed, and would give as much pleasure to Londoners as the yearly visits of the Black-headed Gulls which are now so regularly expected.

CHAPTER V

A Lincolnshire Mud-flat

MUD, miles and miles of mud, and tidal ooze are the chief characteristic features of the shores of the Wash. A little farther north, where the sand predominates, the shallow sea is full of innumerable shrimps, which are caught, not from boats, but in nets trailed astern from a cart; but below Skegness the mud begins. The Friskney Flat, for instance, is three miles wide and nearly ten miles in length. At low tide the sea is invisible from the sea-wall, save as a narrow streak midway between the Lincolnshire and Norfolk coasts.

This vast expanse of mud, as autumn approaches, is peopled by immense numbers of birds, chiefly waders, which appear with unfailing regularity every year. Many of them hail from the mysterious solitudes of the frozen north, never yet trodden by the foot of man; others from Scandinavian fells and the desolate "tundras" of Siberia.

In those far-distant shores they have spent the short summer nesting and rearing their young broods, until the signs of quickly approaching winter began to be perceptible, warning them to start on their southward journey to warmer climes. Gradually they are working down, stopping to rest

and feed in suitable places. As they travel onwards their places are constantly taken by fresh arrivals, while they pass along our coasts, and through the vast marshy plains of Southern Europe, until they are lost in the great African Continent, the winter quarters of so many millions of the feathered race. In the spring they begin their return journey with equal regularity.

Hence it is that the mud-flats of the Wash, which all the summer through have been almost devoid of bird life, are now alive with immense flocks, busily running over the shimmering surface, and flying along the water's edge as the encroaching tide restricts their feeding-grounds and drives them along before it.

White flocks of Gulls, like drifting sea-foam dot the distant margin. Curlews, Godwits, Redshanks, Knots, and Oyster-catchers explore the shallow pools tufted with samphire. Ever and anon circling flocks of Dunlins, now dark against the sky, now gleaming white against the moist muddy surface, dash past in search of fresh feeding-grounds; while others trip nimbly over the shining sands, or with half-expanded wings, like tiny pleasure-boats, run before the



BAR-TAILED GODWIT (*Limosa lapponica*),
WINTER PLUMAGE.

wind. By day the scene is one of great animation, and the constant arrival of countless thousands fills the silent watches of the night with the beatings of innumerable wings and the mysterious sound of their cries to one another. We see the flocks which safely reach our shores: but who can estimate the numbers of weary wanderers which fall utterly spent and exhausted into the pitiless sea, or dash themselves against the lanterns of lightships and lighthouses, attracted to their death by the glaring rays?

On first arrival many of them are ridiculously tame, and show by their boldness how unaccustomed they are to the presence of man. Dunlins, instead of flying off at one's approach, will often run behind a tuft of grass, and continue feeding in the most fearless and unconcerned manner, and Godwits also show little fear. Danger, however, besets them on every side, and they soon learn caution and how to take care of themselves. Shore-shooters and gunners take toll of them, and they are caught wholesale in the flight-nets, which at this season are stretched over the flats at right angles to the incoming tide. During the night the treacherous meshes entangle numbers of them while flying from one feeding-ground to another, six or seven dozen Knots taken out of one net being a not uncommon experience.

At Friskney lives old Bray, the most skilful flight-netter on the coast: and three or four days were spent with him a few years ago in watching his methods of circumventing wild-fowl.

Turning out of our lodgings before daybreak one cold,

raw morning, we walked half a mile in drizzling rain to Bray's cottage, finding the old man struggling into his big sea-boots. Then shouldering a lot of empty bags, destined to receive the bodies, alive and dead, of the night's catch, we proceeded together to the flats. On reaching the sea-



EARLY MORNING AT THE NETS.

wall, we turned off along it to the left for some distance, in order to avoid a creek which winds in a devious direction towards the sea.

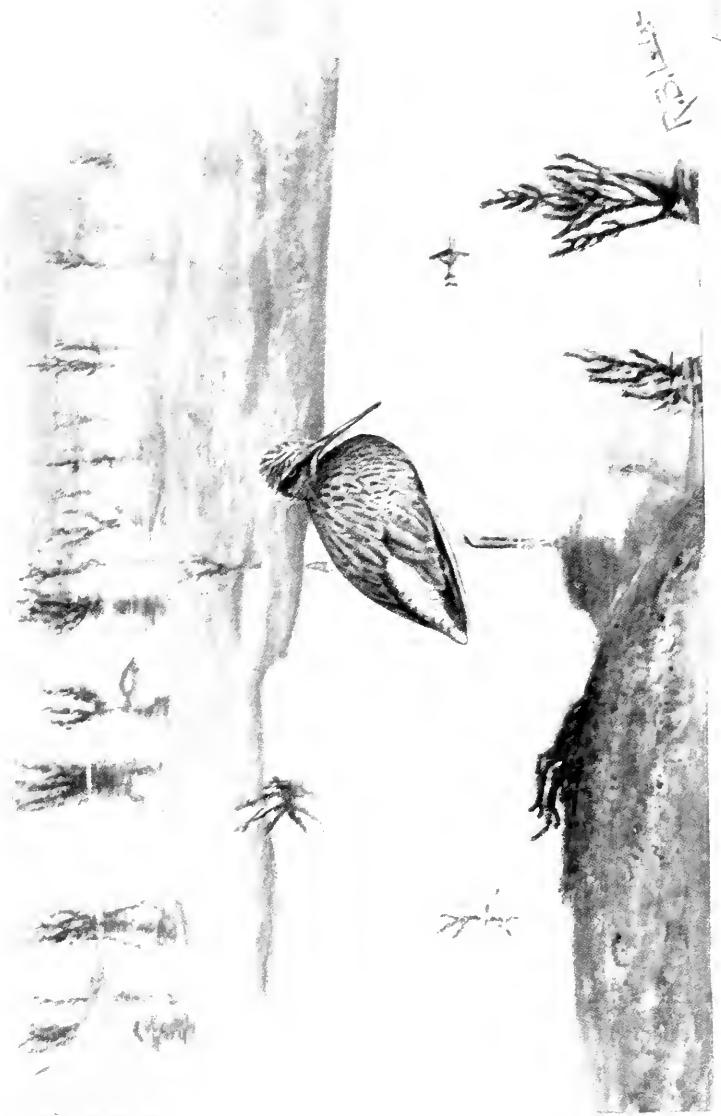
These creeks are quite invisible a few yards away, and help to make this coast a very dangerous one for strangers;

for the tide advances so rapidly on the flat shores, that any shooter rash enough to venture alone, without knowing all the creeks and inequalities behind him, may suddenly find himself cut off by half a mile or so of deep water, and will be lucky if he escapes with his life.

Picking our way along in the grey morning light over the slippery mud, and splashing through the pools, we begin at last to be able to see in the distance the long line of the nearest net, and can soon distinguish various birds suspended in the meshes. On one of the upright stakes sits a fine Peregrine Falcon, evidently attracted by the fluttering of the captured birds, but too knowing to venture to strike at them. As we advance, she soars into the air and soon disappears. We had heard rumours of a large Hawk about the shore a day or two before.

The nets are from two hundred to three hundred feet in length, each piece six feet high and thirty-five yards long, suspended between upright stakes driven into the mud. As soon as a bird strikes the net, which is made of very fine twine, and with a large mesh, it is entangled, and the more it struggles the more hopelessly it becomes bound. Sometimes, indeed, it is no easy task even for a practised hand to free it from the toils. The nets must be visited at daybreak: for if left, the Grey Crows will find them, and help themselves to the smaller birds, and to those which have been caught in the lower meshes and drowned by the advancing tide.

After visiting four or five nets, the round taking us



BAR-TAILED GODWIT (WINTER PLUMAGE).
(Limosa Lapponica).

five or six miles over very bad ground, the bags getting heavier and heavier as we proceed, we are by no means sorry to get back to the village and a good breakfast.

The take has not been anything very great—the bulk of the birds being Black-headed and Common Gulls, one immature Great Black-backed Gull, and some Lapwings, Godwits, Stints, Dunlins, Knots, and a Curlew, the greater number alive and uninjured. These are turned out into pens awaiting their disposal, and the dead ones put aside.

They eat the Gulls here, the market-price being one penny each; and the orthodox manner of cooking them is to make what they call a “pot-pie.” I believe they are skinned and boiled as a preliminary, and was assured that they were very good. However, I did not feel tempted to try, so cannot say from experience whether they are to be recommended as a dish for epicures. They are cheap enough, at any rate.

But wading- and sea-birds are not the only ones which come ashore here. The Grey Crows, which haunt the shores all the winter, as well as the fields more inland, come over from the Scandinavian Peninsula, and also Woodcocks and Short-eared Owls. The former of these are seldom caught, presumably because they fly too high; but the latter are often taken in the nets.

I saw myself one day the arrival of a Short-eared Owl, hustled and mobbed by a lot of Rooks. It is often flushed from turnip-fields by Partridge-shooters, and, coming about the same time as the Woodcock, is known sometimes as

the Woodcock-owl, and in Norfolk as the Marsh- (or Mash-) owl. It even nests on the ground among sedges and coarse grass, but is now better known and more common as a winter visitor than a resident breeding species. However, whenever the country is devastated by a plague of voles—



BRAY TAKING BIRDS OUT OF FLIGHT-NET.

such as took place in Scotland in 1893—the Short-eared Owls flock to the infected spot and do good service, as is shown by the report of the Committee appointed by the Board of Agriculture, published in the *Zoologist* for April, 1893:—

“In consequence of the vast multiplication of their

favourite food, the vole, these Owls have not only arrived in unusual numbers, but have remained and bred all over the district affected, laying from eight to thirteen eggs (though Prof. Newton, in his edition of 'Yarrell's British Birds,' mentions seven as an unusual number), and rearing more than one brood. The shepherd on Crooked Stone counted fourteen nests on his ground. The small wood behind the farmsteading of Howpasley presented a remarkable appearance, the ground being densely covered with the 'pellets' or 'castings' of Owls, being composed of the fur and bones of voles."

Some years bring a remarkable invasion of Golden-crested Wrens, and with them generally may be found a specimen or two of the rarer Fire-crest. On these occasions the hedges and bushes in the neighbourhood are thickly covered with tiny wanderers, sometimes too fatigued with their journey to proceed until refreshed by rest. Snow-buntings also come over more or less regularly, if not in such large numbers.

Occasionally there will be a sudden invasion of some unusual species in great numbers to the eastern shores of England. The winter of 1893-4 will be remembered for the numbers of Lapland Buntings, which before the previous year had only been known as very occasional stragglers. In 1888 there was the extraordinary passage of Pallas's Sand-grouse, not only to the eastern counties, but all over England and Scotland, and the whole of Europe. In 1892 large numbers of Ruddy Sheldrakes invaded Britain; and early in 1895,

and again in 1900, the shores of Lincolnshire and Norfolk were strewn with Little Auks, either dead or dying.

It is fortunate, seeing so many rare wanderers turn up on our eastern coasts, that there have been competent observers ever on the watch to detect them in both Lincolnshire and Norfolk. For years Mr. Caton-Haigh and the late Mr. Cordeaux in Lincolnshire, and Messrs. Gurney and Southwell and the late Mr. Stevenson in Norfolk, have watched the arrivals annually, and have recorded not a few occurrences of most extreme interest: for among crowds of the common migrants there is always a chance of a rarity: and following the rush of small birds, for the purpose of preying upon them, are often large birds of prey—such as Falcons and Buzzards.

The Great Grey Shrike is a tolerably common winter visitor on our east coast while in attendance on flocks of little birds.

But while birds which breed in Scandinavia, Lapland, and Siberia may be expected to visit us on their southward passage, it is less easy to account for the occasional occurrence of American and Asiatic species. How is it that hardly a year passes without a few such occurrences? Among the order of Limicolæ there are no less than twelve American species which have been recorded from our coasts, and some of these on several occasions.

It is inconceivable that these birds, which are none of them noted for very strong and long-sustained flight, should have crossed the Atlantic in defiance of all known habits

of their class. It is more reasonable, surely, to suppose that, returning southwards from their circumpolar breeding-grounds (and it seems customary for all this class of birds to nest at the farthest northern limit of their range), they lost their way or became mixed with flocks of similar habits which were bound for the European route instead of that through the American Continent.



LESSER BLACK-BACKED GULL (IMMATURE) CAUGHT IN FLIGHT-NET.

How else can the presence be accounted for of so many of this kind of bird?—the Solitary and Spotted Sandpipers, the Pectoral Sandpiper, Bartram's Sandpiper, Bonaparte's Sandpiper, the Buff-breasted Sandpiper, Eskimo Curlew, Red-breasted Snipe, Yellowshank, American Stint, Killdeer Plover, and Lesser Golden Plover—birds which usually range through the entire length of the great American

Continent, from the Arctic Circle to Patagonia and Chili.

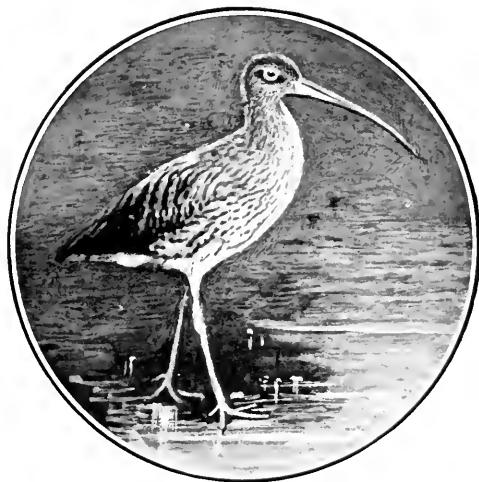
The extent of the world's surface covered by birds in the course of the year, many of them of minute size and feeble flight, is really a most interesting and fascinating part of the study of bird life, and one too often neglected by naturalists.

We are too insular even in our ornithology, and rather too much inclined to rank all birds not on the "British" list as outsiders, unworthy of any consideration at all. It really adds very much to the interest of any particular bird seen to know where it has come from and whither it is bound.

These Knots just taken out of Bray's nets, for instance, have come recently from the farthest north. Various Arctic explorers have found them and their young in lat. 81° and 82° ; but no eggs are known to exist in any collections, national or private, though the birds in their grey winter plumage are so abundant in the autumn. Those which escape the dangers from nets, shore-shooters, and birds of prey will work their way south, passing, many of them, through the Spanish marismas, where they are extremely common on passage, and, according to Saunders, down the west coast of Africa as far as Damaraland; and the return journey brings them back again, passing up our eastern shores, in the red breeding-plumage, the following May. Truly a wonderful annual performance.

What a pleasure it is to be able to follow to their

foreign breeding-grounds birds which have only been known as winter visitors, or perhaps only as stuffed specimens or skins in a museum! A little experience like this does more to broaden one's views and open one's mind than anything I know of.



CURLEW (*Numenius arquatus*).

CHAPTER VI

The Sea-birds of the Farne Islands

ANYBODY desirous of seeing sea-fowl "at home," and of watching their habits and customs, should make a point of visiting the Farne Islands. This group of little rocky islets, set in the North Sea five or six miles from the coast of Northumberland, has been known for ages past as the summer resort of countless numbers of sea-birds. Ever since the days of St. Cuthbert, and probably for centuries before that, they have flocked in myriads to these remote rocks for nesting purposes.

Latterly, however, the continued existence of this interesting breeding-station being imperilled by the greed of the fishermen, and by the thoughtless cruelty of the tourists from the neighbouring towns, the islands have been leased by an association of naturalists, who employ, during the season, four watchers to live on the islands for the protection of their feathered tenants. This has resulted in a most satisfactory increase in the numbers of the birds, which have been in some danger of extermination, and also in the remarkable tameness displayed by them.

Having arrived at North Sunderland or Bamborough, it

is necessary to engage a fishing-“ coble,” as the boats of this locality are called. They are fine seaworthy boats, lugger-rigged, and manned by a crew of three.

After leaving the small fishing-harbour, I found no indication of the existence in the immediate neighbourhood of any large number of breeding sea-birds. A few Terns were to be seen hovering with graceful flight and swooping down on the seraps of fish from the herring-boats, with some stray Gulls and a few Gannets engaged in their unique manner of fishing. As the boat rushes forwards over the heaving waves, a few Puffins and Guillemots may be passed, riding buoyantly over the billows. These, as the boat approaches, suddenly dive, to come up again far away on the other side. The water is so clear and transparent that the brilliant colour of the Puffins’ legs may be distinctly seen as they scull themselves along under water. Exceedingly comical they look, with their trim, squat figures and immense, gaily coloured beaks. Every now and then one will pop up from below with a little silvery fish hanging from its beak, and fly off with it to its solitary young one, anxiously awaiting its arrival at the mouth of the nesting-burrow. Both they and the Guillemots are as much at home below the surface as they are above it, and are most expert in catching such slippery customers as sand-eels and the fry of various fishes.

The sight of the islands to which a visitor is always taken first is the “ Pinnacles,” where the Guillemots breed. An extraordinary scene it is too, and one well worth the

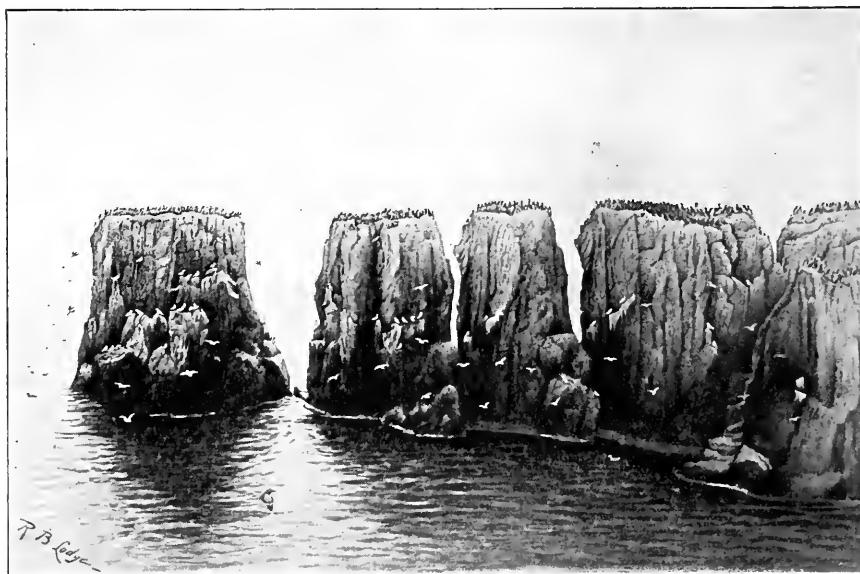


NESTLING PUFFIN (*Fratercula arctica*) IN DOWN AT MOUTH OF BURROW.

journey alone. Off one end of the largest island—called, I think, Staple Island—are four detached, flat-topped rocks or stacks, rising straight up from the sea to the height of forty or fifty feet, so that the top of them is exactly level with the end of the adjacent island, of which at one time they doubtless formed a part. The whole of the upper surface of these stacks is yellow-washed from the droppings of the birds, which crowd together in such numbers as to completely cover the flat tops. Nothing is to be seen but a dense mass of Guillemots, so closely packed together that a fresh bird coming up from the sea has some difficulty in finding standing-room: and it is quite a common thing to see several birds standing on the top of their companions, struggling to squeeze in.

Each of these birds is engaged in incubating its single egg. Like the Puffins, they only lay one, and, like these birds also, the egg is disproportionately large for the size of the bird, so much so that it would not be capable of covering two.

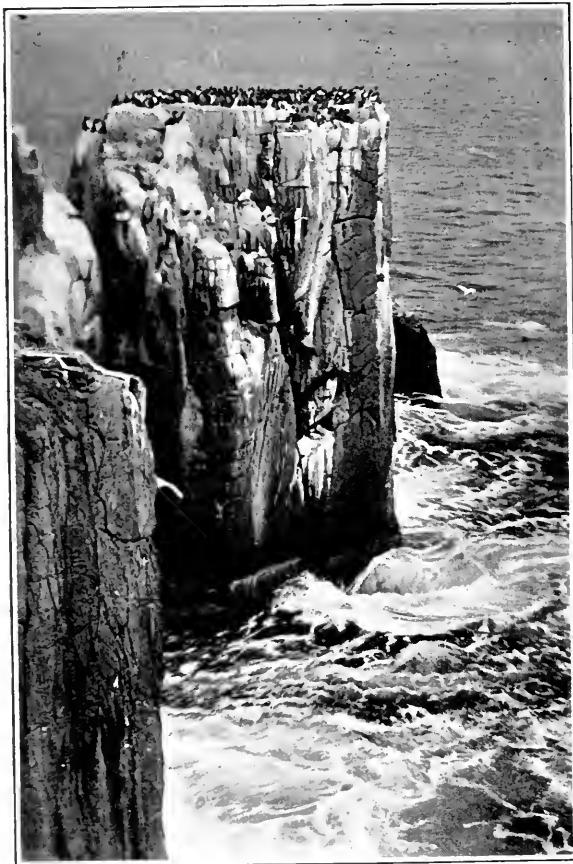
Their eggs, as is well known, show an extraordinary diversity in colour and markings. The ground-colour of some is quite white, others are bright green, and every conceivable shade of yellow and brown, and sometimes blue, is to be seen. The markings are generally striking and bold in character; but these, too, vary as much as the ground-colour, so that out of hundreds of eggs no two will be found alike. It may be that this diversity serves a useful



THE PINNACLES. DRAWN FROM PHOTOGRAPHS.

purpose in enabling each bird to identify its own egg, which would, if the eggs resembled one another, be a matter of some difficulty. Their remarkably pointed shape has been

supposed to be for the purpose of lessening the risk of their rolling over the edge of the rock—a risk to which they are peculiarly liable, being simply deposited on the bare surface without the slightest vestige of nest to keep them in position. It must be admitted that their shape does make them less likely to roll, the tendency being for them to revolve on their own axis.



GUILLEMOTS AND KITTIWAKES ON THE PINNACLES.

All the birds are in constant motion, continually bowing their heads up and down in a particularly grotesque fashion, and engaged in preening their feathers and quarrelling with

one another. Numbers are constantly leaving the rocks for the sea below, and others as constantly arriving. The surface of the sea is also thickly dotted with birds. It is perfectly easy to watch them from the edge of the main island, which is only separated from the nearest stack by a gap of ten or



GUILLEMOTS ON THE PINNACLES.

fifteen yards. All the narrow ledges of rock near the top are also occupied by the Guillemots.

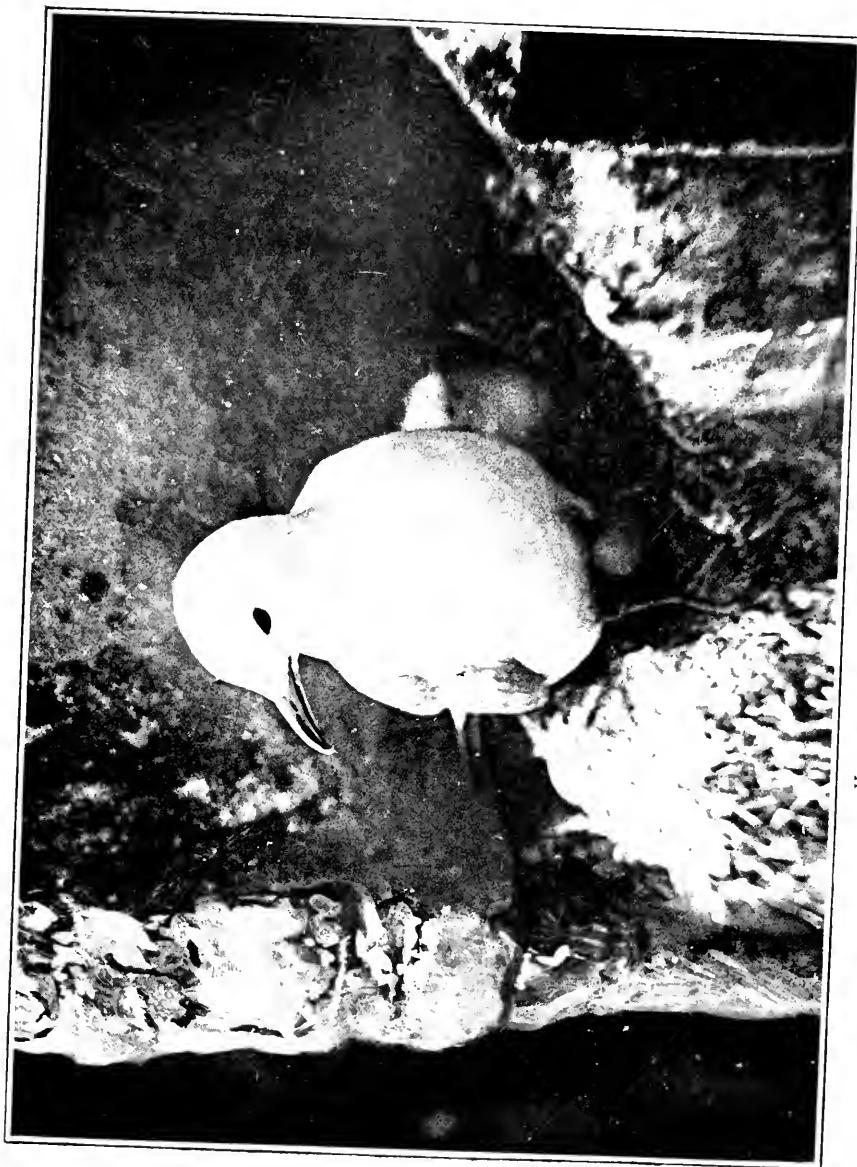
The lower crannies and holes in the precipitous sides of the stacks, as well as of the island itself, are occupied by the Kittiwakes. Some of their nests are so near to the restless waves, which constantly break over the base of the rocks, that many eggs and young birds must be washed

out of them in rough weather. The nests are fairly large and well made, apparently of seaweed and turf, wedged into the cliff-faee wherever there is a hole or crack large enough to hold it.

The pure and spotless plumage of these beautiful Gulls looks of a dazzling white against the dark and rugged rocks, and the scene is one of great beauty. The sea below, bathed in the glorious rays of the midday sun, glitters as if composed of molten jewels, and is fretted into a network of creamy foam as the everlasting surge beats incessantly against the opposing cliffs. Fresh birds are constantly arriving with food for their young, or flying off for supplies, and their shrill cry of "Kitty-kea, kitty-kea," resounds from all sides.

The Kittiwakes, though nesting in such numbers on the same rocks, are never so crowded together as the Guillemots. Each pair of birds build their nest just wherever they can find a suitable place in the perpendicular face of the cliff. They never build on a flat surface like the larger Gulls. If two or three suitable crannies happen to be close together, there will be a nest in each: if not, they will be correspondingly farther apart.

They present the most charming little pictures of bird life. Standing on the extreme edge of one of the numerous rifts and chasms, or on a jutting promontory of rock, you can look across a few feet of space right into the nests. At the time of my visit, the first week in July, the nests for the most part contained freshly hatched birds, sometimes



KITTIWAKE (*Rissa tridactyla*) ON NEST.

one egg and one young one. In many cases one or both of the parents remained standing on or about the nest without displaying the slightest fear or timidity.



PUFFINS (*Fratercula arctica*).

Most of the islands appear to be of the same formation, sloping gradually at one end into the sea, and at the other rising abruptly to the height of about forty feet. This higher part is worn into fantastic pinnacles and jutting crags by the action of the waves. In some parts there is a depth of peaty soil covered with short turf, and sometimes with a luxuriant growth of bladder campion and dock.

This peaty soil is completely honeycombed by the Puffins for their nesting-burrows; whether these holes, which exactly resemble rabbit-holes, are made by the Puffins



A PAIR OF KING PENGUINS.
(*Raja p. ridibunda*.)

themselves, or by the rabbits which are also found here, I do not quite know. At any rate, the Puffin is well equipped with his big beak for excavating a hole for himself, or equally well fitted, by means of the same weapon, for ousting the rabbits *vi et armis* from their habitations.

At the end of these burrows the Puffins lay one large white egg. They may be readily caught in the holes, which are not as a rule beyond arm's-length. But before going Puffin-catching it is advisable to put on a stout glove; for the first intimation that the bird is at home will be a sharp nip, and you realise that the Puffin has



PUFFIN'S BURROW, SHOWING EGG AND HEAD OF BIRD.

caught you first. It can bite hard—nearly hard enough to take a piece out of your glove—and hang on vindictively, its little black eyes seeming to twinkle with anger and

resentment at being disturbed. On putting one down on the ground, it is at first unable to rise, but flutters along



NEST OF LESSER BLACK-BACKED GULL (*Larus fuscus*).

to the edge of the cliff in order to launch itself into the air: once started, however, it is quite at home.

The young Puffins in their downy dress are curious little objects, sooty brown or dull black in colour, with white chests. Their beaks have neither the size nor the brilliant colours of the old ones. The old Puffins are fond of sitting in small groups on elevated points of rock, discussing, I presume, the weather and the state of the fish-market. The postures of these birds are very comical, some bolt upright, others sitting or squatting, and others flapping their little short wings as if to dry them.

Each island has its own special inhabitants. The Guillemots are entirely restricted to the pinnacles, while the chief stronghold of the Cormorants is on the Megstone. The Terns in 1895 were nesting in large numbers in the "Wide-opens." The Lesser Black-backed Gulls and the Herring-gulls nest all over the islands, making their untidy nests indiscriminately anywhere on the flat surface, never on the perpendicular sides of the cliffs. Many are in the corners of the bare rocks, and others are placed amid the tall docks and campion. One nest was particularly well constructed of bladder campion pulled up by the roots, with the white flowers still fresh.

The eggs are very variable in colour, from dirty white to a dark olive-brown, and the eggs of the two species so much resemble one another that it is impossible to identify them unless you see the birds. The Herring-gulls, however, are much in the minority, not much more than five per cent. being of this species. Young birds of both species, in dirty yellow down mottled with brown, are to be seen running about the rocks and paddling in the pools of rain-water. As



LESSER BLACK-BACKED GULL (*Larus fuscus*).

you approach them they crouch into a corner, and so much do they resemble the rock on which they are squatting that when motionless it is difficult to avoid treading on them.

The adult Gulls wheel round to the spot in hundreds, the moment the boat touches their island domain, amid great excitement and loud and angry cries. On landing, you are greeted with many unsavoury salutes as the birds soar overhead, every step being accompanied by splashes on the rocks on every side. It is like being under fire. Before I had landed two minutes, both my coat and hat were plentifully besprinkled, while the birds laughed derisively, "Ha, ha, ha." They are most bold-looking and handsome birds, but are great robbers, living chiefly by plundering their weaker neighbours, devouring both eggs and young, if left unprotected for a moment.

When trying to approach the other birds, I found their inquisitive behaviour a great nuisance. Just when I was most anxious not to attract attention, they would wheel around me with much clamour and outcry.

On the island known as the "Wide-opens" there were large colonies of both the Arctic and Sandwich Terns. There used to be a settlement of the Lesser Terns, which some years ago died out, and I do not know whether the attempt to re-establish them by placing eggs from other localities in the nests of the larger species has been successful or not. The Common Tern used to nest also, though I saw none. Since the better protection of the birds a few pairs of the rare Roseate Terns have nested annually, and seem

to be increasing again. It is not so easy, however, for an inexperienced eye to distinguish an isolated pair or two of any particular species, mingled with so many hundreds of the common kinds.

On landing, the numbers of white forms flying in wild confusion give one the idea of a snowstorm, and the invasion



EIDER-DUCK (*Somateria mollissima*) SITTING.

of their nesting-ground is greeted by a babel of incessant outcry. The note is a repetition of "Kreee-kr-ee."

The Arctic Terns were mostly nesting in the shingly shores, some among the stones, and others among the drift-wood and seaweed above high-water mark. Not much of a nest is made in these situations. The Sandwich Terns' nests were generally higher up, among the bladder campion; and here the nests were simple hollows in the ground,

sometimes very close together. Two and three eggs is the full clutch. Many young birds had been hatched, and dozens of them were dead in the nests, killed by a heavy storm of wind and rain on the previous day. The eggs of the Sandwich Terns are very richly coloured and marked, and are much more handsome than those of the Arctic Terns, as well as much larger. They appear shy at the nest, and when sitting the long swallow-like wings are crossed high over the back, and the head is very upright.

After photographing the nest of a Sandwich Tern containing an egg, a young bird, and the empty shell from which it had just emerged, the other egg also hatched



NEST OF OYSTER-CATCHER (*Haematopus ostralegus*).

before I had taken the camera away. Young in down are yellowish grey. Terns are very plucky in defence of their nests, and I saw one pursue a Lesser Black-backed Gull



CORMORANTS (*Phalacrocorax carbo*).

which had approached too near, striking at it repeatedly, and following it resolutely for a considerable distance. One of the watchers had been struck on the head the previous day by one of them.

Near to the Tern colony were two nests of Eiders. On one the duck was sitting hard, and our photographic operations did not disturb her. There is no bird which sits closer than the Eider. This one allowed us to stroke her on the nest. The other nest only held three eggs and a small quantity of the famous down, which is not deposited in any quantity until the full clutch of eggs is laid. The nests are sometimes on the bare rocks, often

among the campion, where they are perfectly hidden, and at the foot of the ruined buildings or inside the roofless walls.

On the rocks at the water's edge was a flock of about

thirty Eiders, mostly ducks, but among them were a few drakes. Only one of these was in the beautiful male plumage —the others had begun to assume the duckplumage, and were in “eclipse” dress, a very interesting sight.



CORMORANT (*Phalacrocorax carbo*).

Farther on was a small flock of five or six Oyster-catchers, uttering their somewhat plaintive pipe as they searched the seaweed-covered rocks, uncovered by the falling tide. Close to an old wreck, cast up high and dry by the fierce gales of winter, was a nest belonging to some of them. This

was better made than is usual with these birds, being a fairly substantial structure of stalks, in which were three eggs and two rabbit bones by way of ornament.

On a patch of wet sand, reflecting the colours of sky and clouds, and on which the long billowy swell broke lazily in little ripples, a large flock of Terns had settled, while others soared and hovered above them, their white



CORMORANTS (*Phalacrocorax carbo*) SITTING.

wings and snowy plumage looking very brilliant against the sunlit sea.

On the highest point of rock of the neighbouring island were a number of Cormorants on their nests. These I determined to photograph, if it were possible—though I must say I hardly expected that they would allow of a close enough approach.

When landed, it took some time to climb up to the

top of their rocky islet, necessitating several journeys to get up the camera and belongings. The climbing was easy and simple enough, merely clambering up huge boulders, one on the top of the other; but laden with cameras and breakables it took some time, especially as they were very slippery. However, at last I got everything up, and there, forty yards away, were fifteen or sixteen Cormorants sitting. Covering the camera with a large green bag, and getting inside myself, I started crawling on my knees in their direction, until slowly and laboriously I reached the rocks on which the nests are placed.

All this time the Gulls were wheeling overhead, and screaming their hardest, and the Cormorants began to show serious alarm, one bird in particular standing up in the nest, as though meditating flight. As the flight of one would probably lead to the departure of the whole lot, I thought it better to halt until their confidence was regained a little. While waiting I exposed a plate or two on them in case of failure in getting any nearer, and when they appeared to have settled down I proceeded. It was now necessary to move very cautiously indeed, an inch at a time, over the rough surface, through pools of stagnant rain-water, nearly squashing on my way several young Gulls, until I was within five yards of the nearest birds, and could see the close scaly nature of their plumage and their emerald-green eyes. Though they looked curiously in my direction, I was enabled to obtain several good photographs before they finally took alarm and flew off.

The nests were large structures of seaweed and large stalks of some kind, piled up on the rocks, sometimes so close together as to touch. The nests were very flat, and the majority held two chalky-white eggs, though some had three, and one nest contained four. The smell in their immediate proximity was very strong, and the rocks around were plentifully whitewashed.

At the time of my visit I had seen some small birds flitting about the rocks; but being then unaware that the Rock-pipit was one of the species to be met with, I did not take particular notice of them: nor did I see any nest of the Ringed Plovers on the little shingly beaches to be found on some of the islands.

The Gannets, which may be seen fishing around, are visitors from the Bass Rock, which is only about forty miles farther north, a mere trifle for these grand birds when in search of food. To see them plunge from the clouds is nearly as fine a sight as to watch an Osprey catch its funny prey.

Permission to visit this sea-birds' paradise is necessary; and when that is procured, you are allowed to land in company with one of the watchers, who never leaves you, and is responsible for your discreet behaviour. No eggs must be taken, except perhaps a few of the Lesser Black-backed Gull, which predatory species has to be kept rather in check, as any undue increase in their numbers would mean danger to their weaker neighbours.

CHAPTER VII

The Norfolk Broads

AMONG all the counties of England, Norfolk easily comes out first for its list of birds, and a very large percentage of rare occurrences are recorded by Norfolk naturalists.

For this there are several reasons,—the chief, perhaps, being its position, right in the track of migration, where so many migrants from northern latitudes first strike our coast; and secondly, the large extent of marsh and water still remaining in what is known as the Broad district, where wading and water-birds, driven away from the rest of England by drainage and cultivation of their former haunts, may still find a congenial refuge. Here they linger in ever-dwindling numbers, but they are very reluctant to be driven away. Again and again do they attempt to nest and establish themselves more firmly—only to have their eggs taken, their young broods destroyed, and themselves shot without mercy.

The naturalist desirous of seeing some of these vanishing species on English soil must hasten before it is too late. Some have already ceased to nest even in the most secluded spots in this unique and semi-aquatic district, and to read the yearly Norfolk notes in the *Zoologist* is sad work.

Year by year the record is rather of disappearances than occurrences—of dwindling numbers in the place of abundance. It is true that a few species added to the list of British birds are mostly from Norfolk; but these are without exception accidental visitors—strays of migration, which may never be seen again on our coast. Poor consolation for the steady diminution which is taking place of regular breeding species, many of which are already extinguished, and others, too many others, on the very verge of annihilation.

The Great Bustard, Little Bustard, Hen-harrier, Ruff, Spoonbill, Bittern, Avocet, Black Tern, Savi's Warbler, and Black-tailed Godwit have vanished as nesting species, never, I fear, to return as such—a sad list of submerged species once plentiful as regular summer visitors, and now victims not so much of over-population, or even cultivation (for there is plenty of room to spare for them still), as of senseless persecution and the greed of collectors.

Most of these may still be met with haunting the scenes where formerly they were so abundant, but only as straggling individuals on migration, and are too often recorded in the local papers as "shot and added to the collection of Mr. So-and-so." Luckily a local association has taken in hand the protection of the birds on Breydon Broad, or there is no doubt whatever that the number of bird murders would be far higher than it is.

At this famous resort for rarities Black Terns and Godwits may often be seen, and every year Spoonbills spend some

days not more than a few miles from the spot where, two hundred years ago, they were accustomed to nest. In 1895, in May, a small flock of twelve Spoonbills visited Breydon, and were so effectually protected by the watcher employed by the association as to escape the usual fate of such rare birds in England, and in 1899 six visited the same place.



WADING AFTER BEARDED TITS, ETC., IN THE BROADS.

In 1901 twelve Spoonbills came, and again they escaped molestation. Mr. Gurney, who records the fact, mentions that they were sufficiently well known to have acquired the nickname of "Banjo-bills," not an inappropriate designation.

The Short-eared Owl, the Marsh-harrier, Montague's Harrier, the Garganey Teal and Shoveller, and the lovely Bearded Tit are all fast-disappearing species, and every year sees their numbers still further diminishing.



BEARDED TIT (*Panurus biarmicus*) AND NEST.

The best way to investigate the bird life of this most interesting district is to live on board a small yacht or wherry with accommodation for sleeping: and if two or three men with similar tastes join in an expedition of this sort, it is by far the cheapest as well as the most enjoyable way. There is the great advantage of being always on the spot, and having a temporary home close to your day's work, instead of having to trudge long distances daily to and from the nearest inn.

A party of four spent ten days in such a yacht in May, 1899, living in the midst of our feathered friends, and a most enjoyable time we had. Our evening meals under the awning over the boom, while we discussed the events of the day and our plans for the morrow, were enlivened by the drumming of a Snipe across the river; and the latest sounds as we turned in for the night were the ripple of the water past our bows, the reeling of the Grasshopper-warblers, and the Sedge-warblers chattering in the reeds.

In the immediate neighbourhood of our boat we found several nests of the Bearded Tit, and saw every day some of the birds. Most beautiful and most distinguished-looking of all our native birds they seem to me, and it is a thousand pities they are getting so scarce. I am glad to say our party had, before starting, resolved not to take a single egg of the Bearded Tit during our stay.

It is easy enough to find the nests if you know how and where to look; but you must be prepared to wade,



NEST OF MONTAGUE'S HARRIER (*Circus cinereus*).

and to wade deep. For, with a long experience in wading in various out-of-the-way parts of the world, I must say that wading in the Broads is about the trickiest of any. Many a time, while wading with a good firm bottom in about three feet of water, I have suddenly, and without the slightest warning, gone plump through a deep hole in the floor, so to say, up to my shoulders, and then have been unable to touch the bottom. For this reason it is necessary to carry an oar, or a "quant" (as a punt-pole is called in the Broads). The edges of these holes are luckily firm, and, with the help of an oar, you can get your knee over and struggle up again; but they are exceedingly dangerous.

A "quant" is also a most useful tool with which to poke about among the reeds and sedge, and in searching for Bearded Tits' and Reed-warblers' nests it is almost indispensable. By parting the reeds in front of you as you advance slowly, and as quietly as possible, you can see the nests of the latter suspended between the reed-stems: and for the former you can hear the rustle of the bird as it silently slips off its nest and creeps through the thick growth. Then you know exactly where to look for the nest, and will probably find it a few feet in front of you among the confused tangle of dead vegetation, where otherwise it would most probably escape observation altogether. For its construction is of the roughest, as far as the outside appearance. The inside, however, is beautifully lined with the flower of the reed—the "fane," as the marshmen call it—and sometimes a feather or two.



SHORT-EARED OWL (*Asio accipitrinus*).

All the nests I have seen have been in a sedge-bush—*i.e.* a thick, tangled mass of sedge, which cuts like a knife. I have never seen one among reeds proper: they are generally on the edge of a little pool, and within a foot of the water. Only one has been found over dry land, and this was but a few feet from a pathway leading to a boathouse, and contained young.

The nestlings have the most extraordinary palates I ever saw. When they open their mouths—as all young birds do when any one approaches them—they may be seen to be most brilliantly coloured and spotted,—far more so than any other with which I am acquainted.

The parent-birds, after the young are hatched, are particularly bold and tame, taking very little notice of anybody watching them. It was, in fact, a matter of some difficulty to keep them off the nest when I wanted to photograph them on the surrounding reeds. Though standing but a yard or two away, I have had to quite drive them out of it.

Nearly the whole of one day was spent squatting in the same clump of sedge in which was a nest of six eggs. Here most of the sitting was done by the cock. It was most interesting to watch these charming little birds hunting round a small reed-encircled pool for insects, and to see their graceful postures and elegant movements. Their coloration matches admirably the localities in which they delight, and in which alone they are to be seen. The musical note, “Ching-ching,” just like a sharply struck banjo-



NEST OF SHORT-EARED OWL (*Asio accipitrinus*).

string, is quite unique and characteristic, and, once heard, can never be mistaken. The eggs are very faintly streaked with fine lines instead of spots, and are thus different in appearance from the eggs of the other Tits.

These birds have suffered so much from the marshmen, in the interest of collectors and dealers, that it is to be hoped they will be accorded a more effectual protection in the near future, before they are quite wiped out. (I wonder how many clutches have been taken by Joshua Nudd alone!) The present laws are a complete failure, simply because nobody takes the slightest notice of them. The area over which the Bearded Tit is to be found is so restricted that the species is in imminent danger of speedy extinction. The wonder is, not that there are so few left, but that there are any at all, considering how unmercifully the eggs have been taken, and how perfectly easy it is for anybody to shoot them.

But the Harriers are in a much worse plight than the Bearded Tits. The Hen-harrier has quite gone, none having nested now for many years; the Marsh-harrier has almost gone (the last nest was in 1899, but both birds were trapped); Montague's Harrier still lingers, and on rare occasions a brood of young are hatched, but seldom reach maturity; and in a few years this fine species will be numbered with those of other days, and no more will the sight of it quartering the marsh delight the bird-lover.

It was therefore a great pleasure to be able to photograph a nest of four eggs, though the pleasure was discounted



HEAD OF DEAD SHORT-EARED OWL. FACIAL DISK LIFTED TO SHOW TRUE EAR.

by the knowledge that the nest was a deserted one. The situation was a small open space on the ground in the midst of a perfect sea of sedge the height of a man. Such a nest in such a spot can only be found by the most patient watching of the old birds. Not far away we picked up some half-devoured remains of a leveret, for which, I fear, the Harriers were responsible.

This day was a memorable one, for we had that same morning photographed a nest of another rarity—that of a Short-eared Owl. This was also among sedge and rushes, the mowing of which had disturbed the sitting bird from her six eggs, causing her to desert them. Though a circle had been left uncut all round her, she never returned to them.

This Owl is known as the Marsh-owl in this district, and often elsewhere as the Woodcock-owl. It is a migratory species, arriving from Scandinavia about the same time as the Woodcock. But in suitable localities, such as this, it nests in small numbers. It is much more diurnal in its habits than any of our other owls; and instead of nesting in hollow trees and ruins, always does so on the ground among sedge or heather. Though comparatively scarce as a general rule, whenever any part of the country is devastated by a plague of voles, then these Owls, with the wonderful instinct of most birds in discovering any unusual abundance of food, flock to the affected spot in great numbers, and remain there as long as the supply of food is sufficient for them, when they disappear as mysteriously as they arrived.

The so-called "ears" of the Short-eared Owl and the Long-eared Owl are, of course, not "ears" at all, being merely tufts of feathers, in no way connected with the organ of hearing. The true ear is an immense and complicated cavity, occupying nearly the whole side of the head, and concealed by the short feathers of the facial disk. The illustration shows the ear-cavity of a Short-eared Owl, taken, of course, from a dead specimen. By lifting up the movable mask, or facial disk, and pinning it back, the large extent of the true organs of hearing may be plainly seen. This bird is a particularly silent one. Beyond a hissing and a clapping or snapping of the beak, it appears to make no sound whatever.

LONG-EARED OWL (*Asio otus*).

Large numbers of these Owls are taken in the flight-nets of the Lincolnshire and Norfolk coasts on their arrival in this country. I once saw one come over in the early morning mobbed by a lot of Rooks.

The fir-woods are inhabited by the Long-eared Owl, which nests very early in the year in old squirrels' nests and Wood-pigeons' nests — sometimes even on the ground, but this is exceptional.

Daily we saw a Shoveller-duck, which must have been breeding

somewhere not far from our anchorage; but no amount of searching enabled us to discover its nest. Every morning and evening we could see a Great Crested Grebe, accompanied by its single young one, and many a time watched the mother Grebe bring up a small eel, and, after banging and shaking it about, present it to the young bird.

In these days of extermination, it is a relief to turn to one bird which is increasing in numbers and extending its

range, as seems really to be the case with the Great Crested Grebe. On some of the Broads in Norfolk, especially where indis-



REED-WARBLER (*Acrocephalus scirpaceus*) SITTING.

iscriminate shooting is not allowed, it is quite abundant, and in many parts it is becoming established where formerly it was not known. A pair of these most stately water-birds have these last few years nested in the Penn Ponds in Richmond Park, and appear to have laid aside some of their usual timidity.

The Tufted Duck is another bird which seems to be on the increase. The chief stronghold of this expert diver



NEST OF REED-WARBLER (*Acrocephalus streperus*).

seems to be in Northamptonshire, but it nests in the south of Norfolk with the Pochard, Shoveller, Teal, Garganey, Wild Duck, and Gadwall.

At the time of our visit—May—the reeds in every direction were alive with young Coots and Water-hens, and their curious cries were incessant. That of the young Water-hens sounds just like “Joey-joeys.” We were also, I think, late for Water-rails, and also for Redshanks and Lapwings, both of which had half-grown young ones.



REED-BUNTING
(*Emberiza schoeniclus*).

Of smaller birds, the Reed-warblers had hardly begun to nest. They are always late, appearing to wait until the reeds have grown up to a fair height. June and July are more likely months for their nests, and I have found fresh eggs in August. The nests are very easy to find, and are generally over water, but occasionally on dry ground, among meadow-sweet, and even in lilac and willow. The unique method of suspension between upright stems makes them very interesting objects. In Norfolk they are made of dry grasses, lined with reed-flower: but in Canvey Island, where there are sheep, the nests are made almost entirely of wool, in which the greenish eggs look very pretty indeed.

Perhaps the commonest bird is the Reed-bunting—locally called the Blackcap. Its short and somewhat monotonous

song is constantly to be heard in every direction; and the black-headed male bird, flirting its white tail-feathers while clinging to the dried and yellow reed-stems, is a very common sight in all the drier parts of the marsh and on the reed-ronds.

Many Sedge-warblers, Yellow Wagtails, Meadow-pipits, Winchats, and other common birds, all add by their presence to the beauty and interest of the scene.

The botanist, too, may find many rare plants peculiar to the district, and the entomologist comes to capture rare and beautiful insects procurable nowhere else. The sight of that splendid butterfly the swallow-tail, flying in hundreds from flower to flower, is alone worth the journey to see, especially as, with the exception of one small fen in Cambridgeshire, the sight can be enjoyed nowhere else in England.



OYSTER-CATCHER (*Haematopus ostralegus*).

CHAPTER VIII

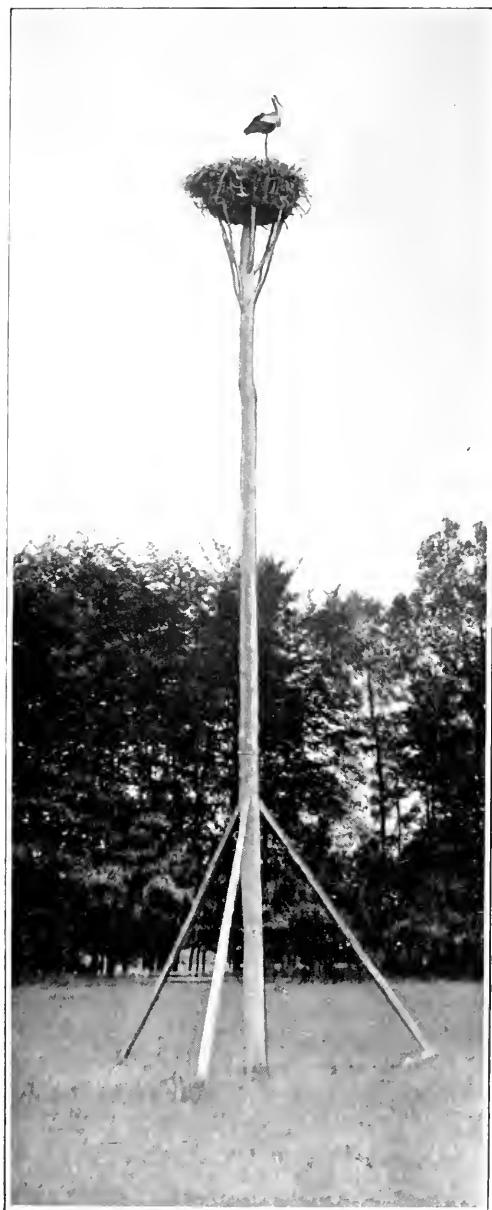
Bird Life in Dutch Marshes

They are all gone now: no longer do the Ruffs trample the sedge into a hard floor in their fighting-rings, while the sober Reeves stand round, admiring the tournament of their lovers, gay with ears and tippets, no two of them alike. Gone are Ruffs and Reeves, Spoonbills, Bitterns, Avosets.

THUS Kingsley wrote in his eloquent lament over the disappearance of the old fen country and its wild inhabitants and their picturesque associations. And gone they truly are as regular and common visitors.

But fortunately the memory of places seems to linger strangely in the minds of birds. They are very reluctant to forsake altogether any locality frequented by them through many generations; and for years they or their descendants, impelled by we know not what inherited instinct or ghost of a memory, will revisit the once-familiar spots, in spite of persecution, and in spite of sadly altered circumstances.

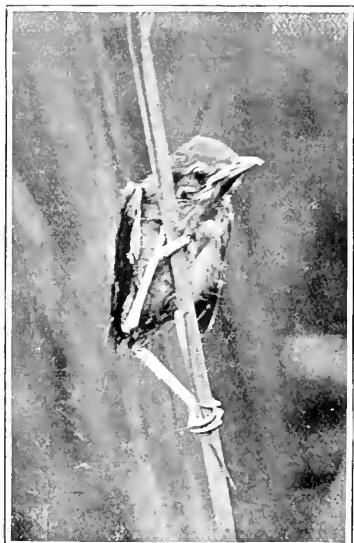
Of the Lincolnshire fen country barely a trace remains, to such an extent has it been drained and cultivated, growing roots and corn where formerly the "Coot clanked and the Bittern boomed, and the Sedge-bird, not content with its own sweet song, mocked the notes of all the birds around: while high overhead hung motionless Hawk beyond Hawk,

WHITE STORK (*Ciconia alba*) ON NEST.

Buzzard beyond Buzzard, Kite beyond Kite, as far as the eye could see."

In Norfolk the fen fauna is making a last stand, much as the English did after the Conquest in the old Ely fen, and, like them, they are year by year dwindling down and being overwhelmed by a new order of things: so that the ornithologist desirous of observing their habits, being unable to find them with any degree of certainty, is compelled to cross the North Sea and follow them to their haunts in Danish marshes, and in the "meers" and "polders" of Holland, while there is yet time. Even there the greed of mankind is pressing heavily on them,

—so much so that it is only a question of time—a few more years—and they will have to be followed still farther afield, to countries where they can find more free and unoccupied space and less human persecution.



YOUNG GREAT REED-WARBLER
(*Acrocephalus turdoides*).

Holland is the nearest and most easily accessible, and it was there that I first experienced the delights of working in a fresh country, where birds which had hitherto only been seen in books and museums were to be met with at home, full of living grace and beauty.

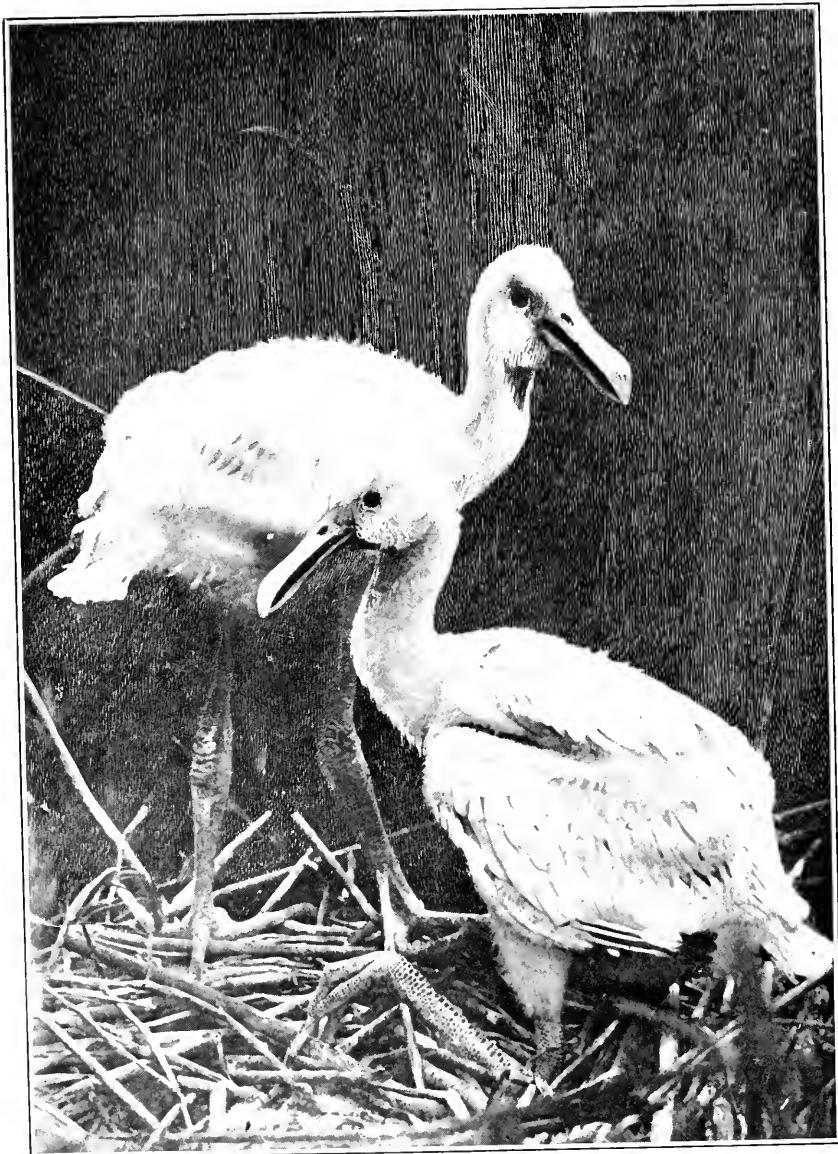
Leaving London at eight in the evening by the comfortable Hook of Holland route, *via* Harwich, one finds oneself on

Dutch soil about five o'clock the next morning, almost without knowing that there has been any sea passage at all. Then about four hours' journey brings one to the house of a Dutch friend, to whom I am indebted for my first introduction to a large fresh-water "meer," inhabited by many of the birds whose extinction and diminution we have just been deplored in England.

The exact locality of this place I prefer to keep to myself, for there are now but two localities in the whole of North-western Europe where the Spoonbill still nests, and this is



GREAT REED-WARELER (*Acrocephalus tordooides*) AND NEST.



YOUNG SPOONBILLS (*Platalea leucorodia*).

one of them. I am indeed bound by promise as well as by inclination not to reveal the place to any one, or in any way to endanger the retreat of these fine birds.

A few years ago a colony of them used to frequent another marsh in the neighbourhood, which was subsequently drained, and is now cultivated land. They then betook themselves to their present resort, and in a few years this was also drained. Fortunately, however, the expense of pumping exceeded the value of the recovered land, which was indeed almost worthless, and after several thousand pounds had been spent the place was allowed to revert into its original state, and the Spoonbills and other feathered inhabitants returned to find shelter and safety once more in the reed-beds of this most interesting "meer."

It is indeed a most charming place for an ornithologist—full of lasting interest and delight, where he can revel in the sight of many banished birds nesting in large numbers undisturbed and unmolested. Three visits made to this spot have each been more enjoyable than the one before, and I hope to be able to revisit at some future day the scenes of so much pleasure.

The birds are not by any means the only inhabitants of this place. It is full of fish. Immense pike, great, fat, slimy tench, red-finned roach, and eels abound in its deep waters, and constitute a source of profit to the lessee, who employs a fisherman to protect his rights, and to net and bring to market his captures.

The fish are caught mostly in drum-nets placed in



YOUNG SPOONBILL (*Platalea leucorodia*).

narrow channels cut in the reeds, and as soon as caught they are all placed in a stew-pond at the back of the keeper's house. It is a sight, on the eve of market day, to see this stew emptied by means of an immense net raised by the united efforts of four or five stout Dutchmen. As it nears the surface, it is seen to contain a solid mass of fish struggling and kicking. Then they are picked out by large landing-nets, and placed in various receptacles according to kind.

The first bird to be seen, as one leaves the keeper's cottage for the "meer" in a flat-bottomed punt, is probably a Black Tern, sitting on one of the stakes of the drum-nets, or skimming over the surface of the water after dragon-flies. This bird takes the place of the Swallows, which are scarce, and, so they say, decreasing in numbers every year. Then as one progresses Coots are heard, plunging and clanking amid the reeds on each side, and presently a brown bird about the size of a Thrush darts across and dives into the thickest part of the reeds. This is about all one sees of the Great Reed-warbler, though its harsh, grating song may be heard in every direction. By standing still and motionless, you may see the bird, as it sings, gradually mounting the upright reed-stem until it reaches the top: but at the slightest movement it will drop into the thick under-growth, still singing, though invisible. It is a great skulker.

The song is unmistakable, when once heard, and sounds like "Kara-kara-karra," etc., from which the Dutch name "Karakeite" is derived. *Groote Karakeite* and *Kleine Kara-*

keite serve respectively for the Great Reed-warbler and the smaller species.

The nests are suspended between the upright reed-stems in exactly the same fashion as those of our Reed-warbler, but are of course much larger. A nest in my possession measures $2\frac{1}{2}$ inches across the hollow, and 5 inches deep outside, against $1\frac{1}{2}$ and 4 inches respectively. In the deep hollow, lined with the flower of the reed, the four eggs look very handsome, being very boldly spotted and marked with rich purplish spots at the larger end. The birds are very common, and the last time I was there we saw hundreds of their nests.

It is very curious that this bird, so common in Holland and North France, only separated from our coast by a narrow twenty miles of sea, should be so exceedingly rare with us. Barely half-a-dozen cases are known of the bird being seen in England, and I believe that there is not one authenticated instance of its having nested.

However, the Spoonbills are the chief objects of interest, and we push on for their haunts in the far corner of the "meer," passing many interesting sights, but stopping for nothing.

A Great Crested Grebe, accompanied by a single young one, passes ahead of us, and is soon lost to sight; Coots and Ducks get up on each side; and we pull past the edge of a large colony of Black-headed Gulls, whose harsh screams accompany us until they consider we are off' their particular domain, when they leave us and return to their nests.



NEST OF SPOONBILL. (*Platalea leucorodia*).



PURPLE HERON (*Ardea purpurea*), AUTOMATICALLY PHOTOGRAPHED BY THE BIRD ITSELF TREADING ON AN ELECTRIC TRAP CONNECTED WITH HIDDEN CAMERA.

Presently the rising of several Spoonbills from the reeds shows that their nesting-place is not far away; and as the punt leaves the channel, and is forced through the thick reed-bed, Spoonbills are getting up all around us in every direction. Presently, after much exertion, the first nest becomes visible through the reeds.

On a large and bulky platform of sticks and dead reeds we can make out three nearly fledged young birds standing up. Unfortunately, however, the noise necessarily made in forcing our clumsy craft along has alarmed them so much that two out of the three, after hesitating on the brink, scramble out, and, plunging through the water, finally dis-

appear. Several others from neighbouring nests do the same, but eventually we find one nest whose occupants are not quite so fully developed.

The scene is a most striking one. On the rude platform of sere and yellow stalks are two young Spoonbills, whose snow-white plumage in the bright sunshine is in strong



YOUNG PURPLE HERONS IN NEST.

contrast to the green background. Their legs look swollen and rather limp, and one of them prefers to squat, as if its legs were hardly equal to supporting its heavy body. The other stands tottering on the edge, desiring to see the last of our company and wishing to depart.

Finding them, however, is one thing, but photographing them is not quite so easy as we expected. The punt is

too narrow and too unstable for the tripod, which has to be put overboard into deep water with a soft muddy bottom. At last, after many struggles, and nearly falling headfirst out of the punt in the act of focussing, the exposure is made. This first attempt, however, proves conclusively that wading-trousers are an absolute necessity for this marsh work, and my second and other visits found me better provided in this respect: I could then accompany the camera overboard into nearly five feet of water, and if necessary remain hidden up for hours while waiting for the return of the old birds.

An attempt to photograph the old birds on this occasion was a failure, as was also another more determined one the following year in the south of Spain, where, though I could see a dozen Spoonbills all round my hiding-place, the intervening reeds made any photograph of them impracticable.

On a second visit to this same Dutch locality the Spoonbills had been disturbed by poachers, who had taken a number of their eggs, and in consequence, while the birds which had escaped molestation had half-grown young, many others were still sitting on eggs. The curious part of it was that the clutches were unusually large, especially for second layings: in one nest were six eggs, and in another seven.

At one of these nests I hid up with a camera, over waist-deep in water, and covered over with reeds, for five hours. For nearly the whole of this time the Spoonbills were



NEST OF PURPLE HERON (*Ardea purpurea*).

circling round and round my ambush, sometimes looking as if they meant to alight, until by degrees they dropped down to their nests hidden in the reeds. At last I heard a tremendous flapping, and, on looking out of my peep-hole, had the gratification of seeing one of these magnificent birds alighting on its nest, not seven yards away. As bad luck would have it, I had left one reed between us, and a leaf of this dangled in front of the bird, and I had to wait, watching the unusual sight for several minutes, until it departed. Then I crept out of my ambush and cut down the offending reed, and retired again under cover. It was not long before it returned; and while on the point of making the exposure its mate alighted also on the nest, and I had the pair of them in full view, standing up just in front of me. I was able to expose two plates without disturbing them, and naturally thought that success had at last been achieved. However, on developing them, after my return home, both plates, from which I had expected so much, were hopelessly fogged and quite useless—a typical example of the uncertainty of photographic work among birds.

Four years later, in 1901, I was more fortunate, and succeeded in obtaining several photographs of these interesting and beautiful birds with their half-grown young ones. They are peculiarly silent: only once have I heard them utter a low sort of croaking noise whilst flying round me. They fly with their neck outstretched in front and their legs behind, and look very white against the blue sky. The budding



NEST OF MARSH-HARRIER (*Circus aeruginosus*).

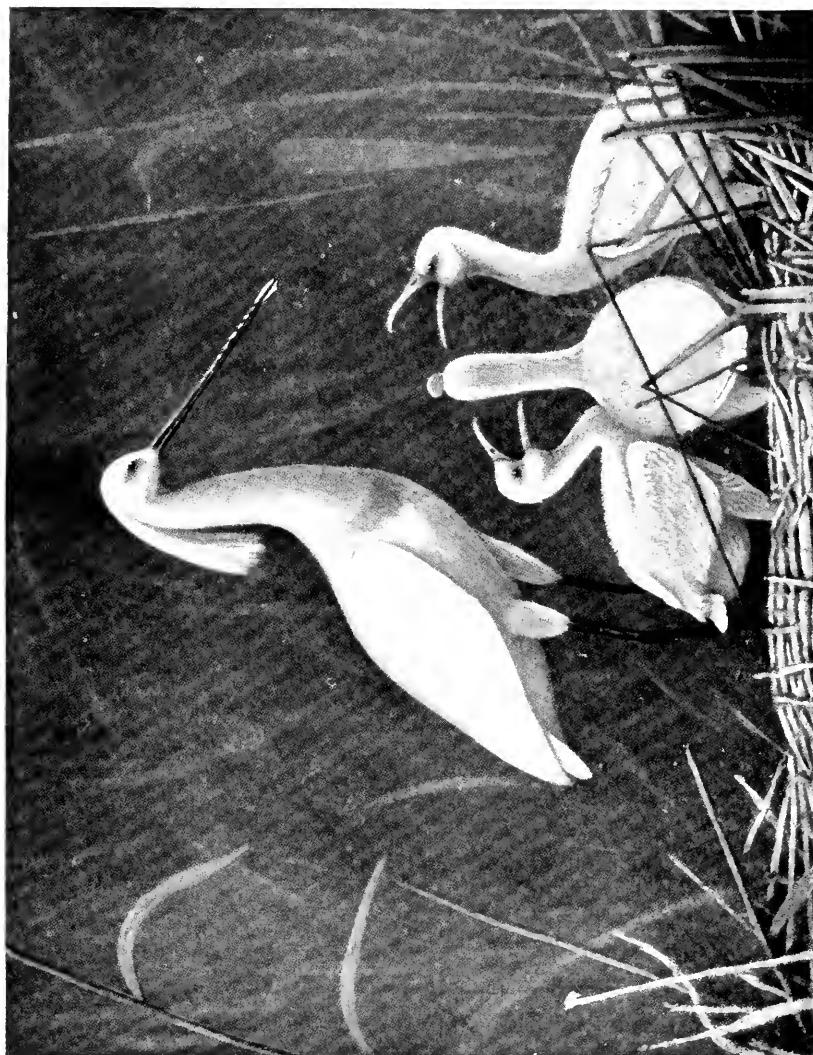
primaries of the young birds, while in the nest, are of a jetty blackness, and the beaks at the same age are flesh-coloured.

I have always found, in close proximity to the nesting-place of Spoonbills, whether in Holland or Spain, nests also of the Purple Heron. At times these nests are exceedingly difficult to approach, though now and then one may meet with them



NEST OF BLACK TERN (*Hydrochelidon nigra*).

on fairly solid ground, but always well surrounded and hidden by a thick growth of tall reeds. In such places, where they can find the solitude and quietness they desire, they lay five beautiful pale blue eggs on a rough nest of dead reeds and sedge. The birds are particularly and excessively shy and retiring. At one nest, which held three freshly hatched birds



From the

SPONGBILL, AND YOUNG.
(*Platalea Leucorodia.*)

not an hour old, and two eggs where the young chicks had the tips of their beaks through the shell and were vigorously clamouring to be let out. I waited hidden the whole day in the hope of a photograph. But no; the parent birds obstinately refused to return, though it was impossible for them to see me. One Purple Heron, probably one of the pair to which the nest belonged, alighted not five yards away from me, a little to one side of the nest on which the camera was focussed. But so suspiciously did the bird watch my hiding-place that it was impossible for me to turn the camera in its direction, and I could only watch it myself. Just in front of it, in a great state of excitement, was a Reed-warbler vigorously scolding the great long-legged Heron, and plainly betraying the nearness of its own nest, which, sure enough, I afterwards found close at hand with four eggs. If this Purple Heron had not been seen alighting, it is very doubtful whether it would have been recognised as a bird at all. The long, thin reddish-coloured neck and head exactly resembled a reed-stem, while the yellow beak looked like a dead leaf.

The smell round all the nests of Herons and Spoonbills is very strong and unpleasant, rivalling in evil odours a nesting-place of Cormorants. One colony of Purple Herons was strewn about with small perch in a state of decay, and the stench was horrible.

In this "meer" the Common Herons also habitually nest among the reeds exactly in the same way as the Purple Herons. They are generally located in a far-away corner, where the growth of reeds is thickest and the depth of

water greatest. The bottom is so soft and treacherous that six attempts to photograph the young birds in their nest utterly failed. Every moment I expected to disappear from sight, camera and all. In the water around these nests were floating numbers of small roach, and others were lying on the nests rotting in the sun, putrid and fly-blown, each one contributing its share to the usual perfume of a heronry. A strong stomach and plenty of enthusiasm are wanted for this work. Besides the strong smell from the nests, each step in the deep stagnant water and each prod with the punt-pole stirs up bubbles of evil-smelling gas evolved from the rotting vegetation, and after a prolonged stay in such unsavoury quarters one's clothes become saturated with evil odours.

On one occasion all the nests of some Purple Herons appeared to be empty when, after some struggling, I had reached the spot, though standing up in the punt we had seen young birds in every nest. After a lot of hunting about in vain, it occurred to me to look under the nests, which, for a wonder, were built on dry ground, or at any rate comparatively dry for Purple Herons. There in a space of a few inches between the nests and the ground all the young Herons were crouching motionless, hoping, no doubt, that the enemy would depart without detecting them. One luckless individual had allowed me to tread on it sooner than move, and on retracing my steps to return to the punt its body was found crushed by my heavy nailed brogues.

The colouring of these nestling Purple Herons is very

striking. Their reddish plumage shows off the yellow eyes and beak, green legs, and bright blue primary quills, so that three or four of these bizarre-looking young birds standing in their nest make a most effective picture. The adult birds



are a trifle smaller than the Common Herons, and look darker in colour.

It was a common sight in our progress in the punt along the canal-



BLACK TERN (*Hydrochelidon nigra*).

like channels cut in the reeds to see these birds, disturbed by our presence, rising from the reeds with flapping wings and

drooping legs, and to surprise them on their way home. On seeing us they would pull up in their flight, and sheer off in another direction with much convulsive and laborious energy. At their nests they are very noisy, making the most extraordinary grunting and groaning.

The difficulty in photographing these wary birds, so striking in their appearance and so interesting in their habits, and the picturesque nature of their haunts, only made me more anxious to make another attempt on different lines.

Accordingly, in 1901, a special expedition to the same place was made in order to photograph the Spoonbills and Purple Herons by means of an automatic electric trap arrangement, which had been devised for their especial benefit. The idea was that, by placing this arrangement on the nest, the bird, on its return, would, by treading on it, depress the lever of an electric switch, and so put the current of a dry battery in action, which would operate a shutter worked by an electromagnet on a concealed camera. By this plan there would not be so much to alarm the birds, so quick to detect the presence of any hidden photographer, who would be free to work in another direction with a spare camera. However, on arrival at the colony of Spoonbills' nests, it was at once evident that this plan was impracticable for them; for the young birds were more than half grown, and ceaselessly wandered up and down their nest, and would inevitably have sprung the trap long before the parent birds returned. A modification of the plan had to be adopted, and a string was fixed to the switch to be pulled from a hiding-place in the reeds a little distance



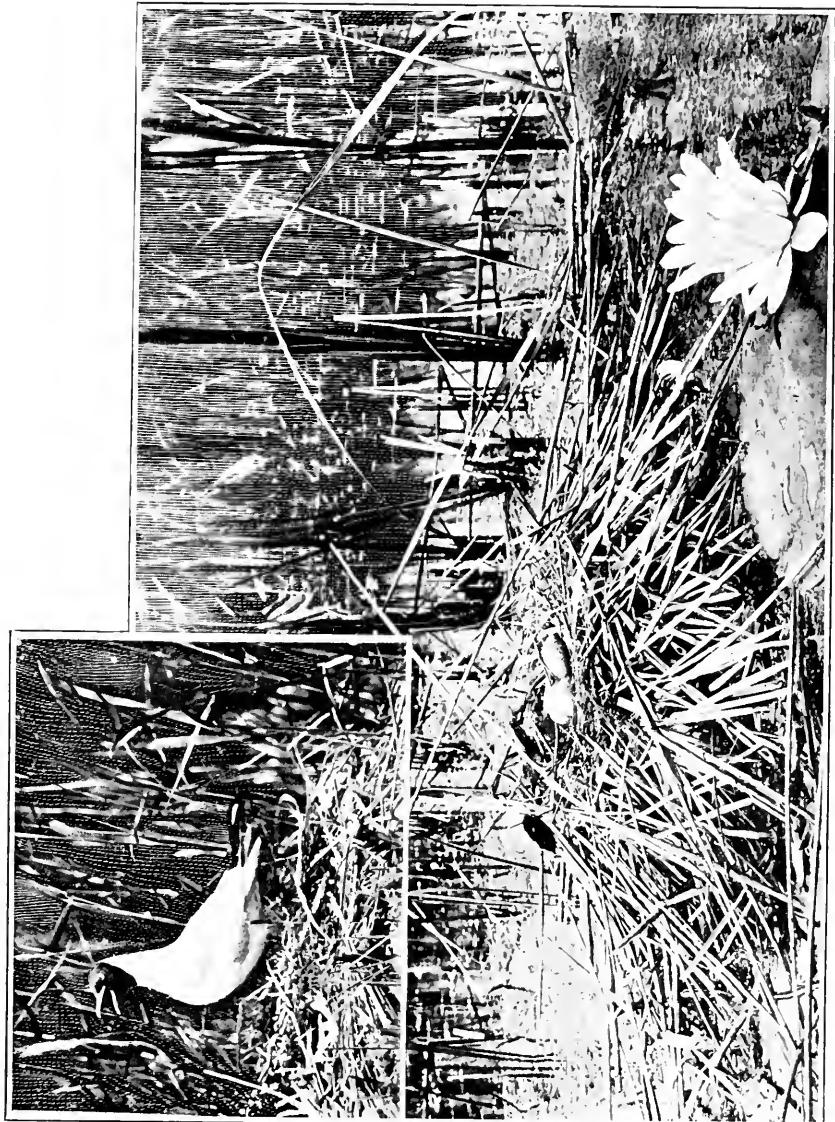
COMMON TERN (*Sterna hirundo*).

away. However, the adult Spoonbills came so much more readily than ever before that this was given up as unnecessary, and many exposures were made from a distance of only about five yards.

Here, sitting in the water and covered over with reeds for several hours, the unusual treat was enjoyed of watching both the parent Spoonbills accompanied by their half-grown young ones. As soon as the old birds had settled, after much flapping of great white wings, the young birds would tease them for food, uttering a whining, chipping noise, until the parent would open its curious beak, and allow the young birds to insert their beaks as far as the crop and feed like young pigeons. This I watched repeatedly.

Another very noticeable fact was that the orange mark on the throat, described simply in the *Manual of British Birds* as "gular region orange," gave them exactly the appearance of having had their throats cut: for the colour is just that of dried blood, and the shape and position resemble a gash with a knife across the throat.

After leaving them, the trap was set at a Purple Heron's nest not far off, which held four eggs. But the water was deep, and the difficulty in hiding the camera very great. After wasting half a day, we failed to score any success: and, to make it worse, my large sheath-knife fell out into five feet of water, and I failed to recover it. That made the second knife lost in the depths of this "meer." A pair of spectacles was also dropped, but these I fished up again: and a box full of exposed plates also fell overboard—these, of course,



BLACK-HEADED GULL (*Larus ridibundus*) AND NEST.

were not worth any attempt at recovery, as the water would have utterly spoilt them.

After this another nest was found better situated for our purpose, where the camera could be effectually hidden on a heap of piled-up reeds level with the water and covered over with wet sedge and rubbish. The nest being made of reeds, a dry reed-stem was used as the lever of the switch, and was placed across the nest. After leaving this for a few hours, we were delighted to find, on our first visit to it, that the bird had returned and had sprung the shutter.

The first impression was that, instead of the Heron herself being recorded on the plate, we had succeeded in photographing a Marsh-harrier in the act of stealing eggs; for we had left four eggs in the nest, and found but three, while the reed-stem serving as a switch was broken short off, and the nest itself smeared with blood. In connection with these marks of disorder, the sight of a Marsh-harrier rising from the reeds as we approached appeared to be rather suspicious. Further investigation, however, showed us that the Heron herself must have broken the reed and her own egg at the same time, for we found it eventually in the water below the nest. The plate, too, on development, showed the Purple Heron in the act of stepping on to her nest in a most typical and characteristic attitude, the reed-stem plainly visible under one uplifted foot.

Two other exposures were subsequently made by this same bird, to my great satisfaction, as proving that for particularly shy birds this method is really practicable in



NEST OF GREAT CRESTED GREBE (*Podiceps cristatus*).

obtaining photographs, while they are perfectly unconscious of any danger. Hiding the camera successfully is the chief

difficulty. If this can be done at the nest of any bird, it is almost a certainty; but if its suspicions are aroused by any very unusual appearance, it will probably desert its eggs, instead of returning to them as usual.

We had proof of this, unfortunately: for a whole day was given to the nest of a Marsh-harrier,



WHITE STORK AND YOUNG (*Ciconia alba*).

where the mistake was made of attempting to hide the camera on its tripod by covering it with reeds, instead of placing it on a heap of reeds and then covering it over.



WHITE STORKS. GREETINGS.

The bird, though its four eggs were hard sat on, deserted sooner than approach such a suspicious-looking object, and they were eventually sucked by Crows.

It was a great treat to be able to watch the fine flight of these Harriers, as they soared in great circles, hardly seeming to move their broad wings, while they sailed round against the blue sky. Every now and then they

would settle on some low bushes near their nest, which was situated on a dry part of the marsh, and placed on a small mound amid the sedge. The nest itself was carefully made of sedge. This failure was a great disappointment; but had the camera been hidden as at the

Purple Heron's nest, I am confident that a successful photograph would have been obtained. There would have been a better chance, perhaps, if the eggs had been hatched and the young birds waiting to be fed.

This is the only Harrier's nest I have seen here, though in former years an odd bird or two have been observed. From the train window, in 1897, I watched one flying over



STORK KLAPPERING.

the "meer" in which I had worked for a whole week without seeing one. On my first visit two, I think, were noticed in the immediate neighbourhood. One of these was quartering over some meadows, which were being mown—on the look out, probably, for Godwit's eggs, or else young Godwits, laid bare by the mowers. At any rate, several Godwits were flying in an excited and alarmed state. One of them I noticed perching on a gate-post, as a Redshank will sometimes do in similar circumstances. Doubtless the Marsh-harrier would nest much more often in a place so suitable for its habits: but too many Harriers would probably mean too few Ducks—at any rate, that is the opinion of the old keeper, who, I understood, had killed no less than seventeen in one season. Under the circumstances their comparative scarcity is easily accounted for.

Though Coots and Wild Ducks are to be met with in numbers indiscriminately all over the "meer," the other birds breeding there keep very much to the neighbourhood of the particular part selected by them, any intrusion into which causes a great commotion and excitement. The Spoonbills and Herons fly off at once, and when sitting hard leave their nests with some reluctance: but the Gulls and Terns, with harsh cries and angry protests, flock round the trespasser as soon as he approaches their nesting-place: nor do they cease their scolding for a moment as long as he remains. He is made to understand unmistakably that he has no business there, and that his presence is deeply resented. I have been sometimes fairly mobbed by Black Terns in

their angry excitement at my presence so near their freshly hatched young. Sometimes their nests are substantially built in shallow water, similar to those seen in the south of Spain. But in the deeper waters which generally prevail they adopt other methods, and lay their very dark, pointed eggs, without any attempt at a nest, on



NEST OF AVOCET (*Recurvirostra avocetta*).

the floating masses of reed-stems, scum, and rubbish of all kinds which accumulates, and gradually forms a kind of floating island, in which seeds of various marsh plants and flowers spring up and grow luxuriantly. In such places perhaps a dozen nests may be seen, sometimes alone, but often in company with Common Terns'. At

other times they will lay on the heaps of cut reeds at the edges of the channels.

On returning to their nests, which they will do when sitting while you are watching them from a very short distance, they have a pretty way of remaining for a second or two with their fully expanded wings in an upright position before finally closing them. In this attitude they have a particularly dainty and fascinating appearance. They appear to feed their young on dragon-flies, which naturally, in such an expanse of marsh, are exceedingly abundant.

Black Terns are regular Marsh-terns, and nest habitually in fresh-water situations; but I must say I was surprised to find the Common Tern breeding in such a locality, looking upon it as a maritime species. It seems, however, that this Tern, while nesting in many places round our coasts, and on islands off the coast, is also addicted in some parts to nesting on the shores of fresh-water lochs; and this appears to be its more usual habit in Ireland, where it is common. On the island of Texel I have seen their nests on short turf in company with Oyster-catchers. I have even fancied that their eggs in such a place are more inclined to a greenish coloration than when laid on shingle.

While waiting to photograph a Common Tern at the extremity of a long floating island, a Redshank pitched close to the nest. Although engaged in changing a plate at the moment, I managed to get it in in time to make an exposure: but before it was possible to repeat it, the Tern flew up and hustled the Redshank away.



AVOCET (*Recurvirostra avosetta*) FEEDING.

The young Black Terns are adepts at paddling along the surface of the water, when disturbed, in the endeavour to escape. They are clad in down of a rich mottled chocolate colour, and the bare patch of skin round the eyes is pale blue. The young of the Common Tern are also difficult to photograph for the same reason : they are most persistent in their attempts to swim away from any intruder. Very much larger than the Black Terns, and of a dirty yellow mottled colour : they very much resemble young Black-headed Gulls in general appearance.

A colony of Black-headed Gulls is a most interesting and picturesque sight. The birds themselves are perfect pictures of grace and beauty. Their black, or rather dark brown, hoods, red legs and feet, and snowy plumage, with jet-black primaries, are in such striking contrast, and their easy and buoyant flight is a treat to behold, as the birds float past and poise overhead, each one scolding its hardest.

Their chosen retreat, too, is perhaps the prettiest bit of the whole "meer." Their nests are placed in an open space surrounded by reeds, and spangled with the floating leaves and white flowers of the water-lily, rivalling their own spotless plumage in purity and beauty. Though the water is deep—quite three or four feet—the nests are solid structures of reeds, apparently built up from the bottom. In a small hollow in the top the three olive-brown eggs lie on a lining of smaller and finer material. Other nests are made on the edge of a small island, and many are hidden from sight in the midst of the surrounding reeds.

On a long heap or stack of cut-down reed-bundles rows of the Gulls may be seen perching, and there are generally two or three preening themselves on the top of a notice-board close to their nesting-place. They may be seen hunting for food over the luxuriant meadows which surround the "meer," and searching the dykes and ditches.

Coots are exceedingly numerous; but, curiously enough, the Water-hen seems to be quite a scarce bird in Holland, where one would naturally expect it to abound. The country seems to be made on purpose for it, and yet I do not remember ever seeing more than one.

On my last visit I had the pleasure of listening daily to the "boom" of a Bittern; and a weird sound it is—certainly not what anybody would connect in any way with a bird. The Dutch name, "Roer-dump," expresses the sound very well. The first part resembles a big indrawn sigh, and the second a hollow "dump." The keeper

declared that the bird did not nest there, which I doubt; but in June the young birds would have probably flown. I should think the Bittern would be very difficult to locate from its "boom," which appears to have a ventriloquial effect.

The Bearded Tit seems to be only a rare winter visitor. Nor could I hear anything of the Short-eared Owl.

A Magpie was nesting in a poplar just opposite the keeper's cottage.

The Great Crested Grebe is fairly common, and I fancy the pike must take toll of the young ones. I have never seen more than one young bird following the parent. The keeper talks of another Grebe, or "Loem," breeding here—probably the Eared Grebe. We saw in the distance one day a Grebe, not a Great Crested, and too big for a Little Grebe; but I could not understand what he said about it, and it was too far off to make it out.

The reeling note of the Grasshopper-warbler may be constantly heard. It is known here as the "Schneider," which means, I presume, "Tailor." If this is because of the resemblance of its note to a sewing-machine, it would seem to point to the bird's comparatively recent occurrence.

The Stork, though popularly supposed to be a welcome guest in every Dutch village, if not in every house, is not by any means so widely distributed, and it is quite possible to travel a very long way and never see a sign of one.

In the beautiful and extensive grounds of the gentleman before mentioned, there is a nest on the top of the usual

pole erected on their behalf: but he has improved on the cart-wheel ordinarily placed in position on the top throughout Holland, by having made an iron cage arrangement to receive and hold the sticks of which the great nest is composed. This is within sight of his library window, looking across the corner of the garden and carriage-drive, and from his easy-chair he can watch their movements, and see the parent Storks standing in their contemplative attitude at the edge of the nest, or watch them arriving with food for their young ones. After the young are hatched, they never appear to be left unguarded, but one or other of the old birds stands sentry until relieved by the arrival of its mate. Then it will spread its wide black wings and launch itself into the air from its lofty perch. Any strange Stork passing over, even though so high in the air as to be well-nigh invisible, is always watched with every sign of alarm and suspicion by the sentry: while the approach of its mate is greeted with "klappering," that mode of language peculiar to the Stork family. The nest is gained by a gradual rise after skimming low down close to the ground: and when it is finally reached by the returning bird, the sight of the meeting between the pair is most grotesque. Each bird politely bows to its partner, and then, throwing back their great red beaks until they rest on their backs, they each "klapper" vigorously.

To see them, one would suppose they were congratulating themselves on meeting once more after a long and perilous journey. In reality, the journey has been to the distance

of some adjoining meadow in search of frogs. Their power of flight is superb, and it is a fine sight to see half-a-dozen Storks soaring easily upwards till lost to sight among the clouds.

There are two other Storks' nests not far away—one at my friend's old house, where he lived up to three years ago, and one in the grounds of his father-in-law. The only other nest I know of was to be seen a few years ago from the railway near The Hague; but I have missed it lately, though I have looked for it when passing.

In the tall trees at one end of the meadow, and quite close to the house, is a heronry, and from my bedroom window in the early morning I could listen to the extraordinary noises made by the birds when feeding their young. At the side of the house is a long avenue of magnificent lime-trees, and in the holes in these trees were many Owls' nests. One hole was pointed out as having held Barn-owls for several years, and the ground below was strewn with castings. One of these yielded the skulls of no less than five shrew-mice, besides other bones; another one contained the skull of a small rat. The grounds of this fine specimen of a Dutch country house consist of eight hundred acres, and the trees contained therein are worth a special visit. The lime-trees in particular are exceptionally fine. Besides Barn-owls, both the Tawny Owls and Little Owls nest near the house. The latter, I was told, are frequently seen in the daytime, and are very tame.

Golden Orioles were very numerous, their liquid note

being constantly heard in the lofty tree-tops. They are seldom seen, however: I saw but a passing glimpse of one, and my host told me that he had only once seen a nest. They are invariably suspended from the pendent extremity of a topmost branch of a high tree, and in consequence are seldom found, and can only be reached by cutting off the branch.

The Ieterine Warbler is another species which nests in the garden and grounds, but I have never seen it.

Desirous of seeing some of the rarer waders, particularly Avocets, a journey was made to a more northern locality, where they still may be found. Though late in the season, several Avocets' nests were seen still with eggs. The nests were on the caked mud of a dried-up creek, and consisted of a few stalks such as are usually to be found in a Lapwing's nest, and each nest contained four eggs. These beautiful and unique birds are perhaps the most graceful and elegant of all the waders, and have always excited the utmost admiration wherever I have met with them, whether on the sandy creeks of the *Zuyder Zee*, or on the mud-flats of the tawny *Guadalquivir* and the marismas below Seville, or the fjords and marshes of West Jutland. Whether daintily tripping over dry mud or the shining surface of tidal ooze, wading in shallow pools, swimming, or flying, all their actions are full of grace and beauty, and by moving quietly they are fairly easy to approach. In fact, we were able, on the *Guadalquivir*, to run close enough to them in the electric launch to have touched them with a boat-hook as they ran about

the mud-flats along the shore at low tide. We found them, in this Dutch island, with the same preference for the company of Redshanks which had been noticed in Spain.

Many Redshanks' nests were carefully hidden in the tufts of long grass: Godwits were also numerous, but we were too late for eggs. By their excited demeanour they had evidently young birds hidden in the luxuriant grass



NEST OF LESSER TERN (*Sterna minuta*).

in the meadows, in which they breed. This grass was far too thick and high to permit of anything like a successful search being made for them. They are the Black-tailed Godwits, which, at the beginning of the nineteenth century, were accustomed to nest in the eastern counties of England. The Bar-tailed Godwits, so common along our coasts in the autumn and winter, do not nest anywhere south of Lapland.

Oyster-catchers and Common Terns were nesting on the short turf, and Lesser Terns on the shingly patches, while the little pools were inhabited by numerous Black-headed Gulls.

The Ruffs, or rather the Reeves, were presumably tending their young in the meadows, where they also nest, like the Godwits, and we saw very little of them.

In this place I had the advantage of a guide who could speak very good English, and had, besides, a knowledge of the different birds, and where they were to be met with. In most Dutch towns there is very little difficulty with the language, as almost everybody with any education speaks English perfectly well. The upper classes invariably speak it with amazing fluency and correctness. In my three visits to the "meer," however, I have failed to find a soul who could understand or speak one single word of English. Twice have I spent a week there—once in a large farmhouse, and again at the keeper's cottage—without being able to communicate with anybody, save by signs.

The whole of each day was spent with a young Dutchman, the son of the keeper, who punted me about from one nest to another, and acted as guide among the intricate channels of the "meer." Here, again, all communication was by signs, helped by a few Dutch words left by my Dutch friends in my pocket-book when they drove me over and made all arrangements for my stay. Above all, the Dutch names of all the birds to be met with were provided; and with these I got on very well, especially as my

boatman very quickly got into my ways and understood what was wanted.

The chief difficulty at first was to make him understand, when it was necessary for me to wait in concealment at a nest in order to photograph the bird itself, that he was wanted to go right away, and to stop away until he was called. Nothing is more annoying, when engaged in this work, after waiting for hours, half broiled by the sun, over waist-deep in stagnant water, and covered over with wet reeds, just at a critical moment, when you are expecting the bird you have waited so long for, to hear your boatman pottering about close to and preparing to come to you. These are the occasions when the ignorance of the language makes itself felt, and when you feel as if you would like to know some of the stronger adjectives in local use in order to do full justice to your feelings.

On one occasion he failed to come when I did want him. Though I shouted till I was hoarse, he did not appear, and I began to wonder what had become of him. The water was generally so deep, and the bottom so soft and uneven, that I hardly liked being left alone; and if anything had happened to my boatman when in such a situation, unable to move a yard without getting over my head, and encumbered with a heavy camera and wading-trousers, the result might have been decidedly unpleasant. If I stopped there for a week, there would be no chance of anybody coming within hail. In this case I was able, luckily, after a time to wade in the direction in which I thought he had gone, and

presently saw him, or rather his punt, some distance off. Of the boatman himself the only visible sign was one leg, with a wooden shoe on the end of it, sticking up in the air. Shouting and yelling had no effect whatever, and doubts came into my mind as to the cause of his silence. Was he drunk, or in a fit, or dead? After some difficulty I managed to wade out to him, and found him lying on his back fast asleep in the sun. Even then he only woke up when I tipped the punt to one side and nearly rolled him out of it.

However, we got on very well together, and he was invariably very obliging and intelligent. His people, too, did everything in their power to make me comfortable, and to help me in my work; and the hours I spent with him exploring all the innermost recesses of this famous resort of rare birds are among the most enjoyable I have ever experienced anywhere.

CHAPTER IX

Bird Life in the Spanish Marismas



WOODCHAT-SHRIKE (*Lanius pomeranus*).

SPAIN is undoubtedly the country which offers most attractions to the ornithologist at the present day. First of all, the country itself has many natural advantages in the immense range of climate and temperature, owing to its physical peculiarities. The snow-clad heights of the sierras look down on sunny vineyards and olive-groves twelve thousand feet below, where the orange,

banana, and other sub-tropical fruits and plants grow freely and abundantly. The soil, too, is of as diverse a character

as the rest of this paradoxical country, the barren and metalliferous provinces of Northern Spain culminating in the fertile gardens of Andalucia and the swampy rice-fields of Valencia. Then, too, the greater part of the country is



DUNLINS (*Tringa alpina*) FEEDING.

uninhabited. Even in the cultivated parts the population is confined to the towns and villages, and the vast spaces of barren sand-dunes, the flooded marismas of the south, and the pine- and cork-woods are absolutely without a human habitation, save the temporary shelter of reeds and branches used by the few herdsmen and charcoal-burners. And, above all, the propinquity of Gibraltar and the southern apex of Andalucia to the great African Continent, the winter resort of so many migratory birds, is taken advantage of by them as the shortest and easiest route to follow. So that a very large proportion of the birds which migrate to and from the northern countries of Europe pass through Spain twice every year. Besides these, there are many others which cross over from Africa, and nest

in the south of that country, as their farthest northern limit in an ordinary way, though most of them are represented in our list of British birds by a few stragglers which have, at long intervals, reached our shores.

The larger raptorial birds, which are almost exterminated in more populous and civilised countries, are here found in great abundance. The carrion-eating Vultures nest in numbers in the inaccessible heights of the sierras, and range over the open country in search of food. The carcases of drowned oxen and sheep, and those of the luckless horses, victims of the brutal bull-ring, are cleared away in an incredibly short space of time by these scavengers, which throng to the feast from far and wide. Even the very bones disappear, the "Quebrantahuesos," the Bone-smashers, as the Egyptian Vulture and the Lammergeyer are called, carrying them one by one high in the air, and then dropping them on to the rocks in order to get at the marrow. The Golden Eagle and Imperial Eagle, Bonelli's and the Short-toed Eagle, and the Booted Eagle are all to be found, some of them preying on the rabbits and the smaller quadrupeds, and others on the innumerable snakes and lizards which abound in every direction.

Of the larger Hawks, the Kites, partly carrion- and partly reptile-eaters, are exceedingly numerous. The Egg-eating Harriers are to be seen daily quartering the lower grounds and reed-beds for what eggs and young birds they can find. The knightly Peregrine and the more humble Kestrel are also numerous. But perhaps it is that extraordinary

and unique region known as the "marisma" which affords the greatest diversity of bird life. Here come, either at one time of the year or the other, almost every species of marsh, aquatic, and wading birds on our list of British birds, with many others unknown to us. The Great Bustard



NEST OF KITE (*Milvus regalis*).

still frequents the rolling plains and tawny corn-fields of the south, and the stately Crane nests amid the reed-grown lagoons.

So that, when I received an invitation to join a yachting party at Gibraltar, for the purpose of exploring the mouth of the Guadalquivir and the famous marismas of that dis-

trict in search of birds, it is needless to say that it was accepted with alacrity. It was the very thing I had been longing to do for years; all needful preparations were made with the greatest enthusiasm, and a start was made with anticipations which were more than fulfilled. Travelling overland through France—for I had been unable to catch the steamer—did not present anything worthy of notice. Birds, indeed, appeared, as far as one could judge from the passing train, conspicuous by their absence, with the exception of Magpies, which were more plentiful than I had ever seen them before. Their nests were to be seen by the dozen, sometimes two, and even three, in one leafless tree.

Railway travelling was not altogether so comfortable as it might have been, though it was partly or altogether my own fault that the journey from London was so long and tedious. Starting on Sunday evening, I did not land on the quay at Gibraltar until Friday evening. Still, the journey was an experience I am glad not to have missed. It gave me an opportunity of seeing something, however cursory, of the whole length of Spain, from north to south, and many typical glimpses of an extremely interesting and picturesque people, and of noting the effects of climate on the various races.

The country south of the Pyrenees is very picturesque: rocky valleys, covered with oak and chestnut, generally had a small stream rippling along over the shallows, and looking very "trouty"—as I believe they are. Here the people are frugal and industrious, the soil not being very productive, and labour being absolutely necessary to get a living.

It was a common sight to see a couple of men, one on each side of a scarlet petticoated woman, digging on a steep hillside, keeping step and time together. All six brown arms would raise their spades above the head, down would go the blades all together, like clockwork, being pressed farther down by their bare feet. At every station—and there was one every few miles—the train would wait while many kegs and boxes of produce of some kind or other were leisurely packed on board: and when we did at last get under way again, the children would run alongside, jumping on and off the footboard for some little distance with familiar contempt. On every train travel a couple of the ubiquitous “guardas civiles,” in their neat black-and-white uniform, and armed with rifle and sword-bayonet. One of these men would, every time he wanted a smoke, open the breech of his rifle, give it a tap, and out would come a cigarette. They are a long way the best-set-up and most soldierly troops in Spain. Every station was also occupied by a “carabinero,” in shabby uniform of most atrocious cut and colour or combination of colours. One I remember had a blue coat, red trousers, and bright green worsted gloves!

Magpies again are very numerous: they appear to be the commonest bird throughout both France and Spain. As the train climbed higher and higher up into the sierras north of Madrid, the snow-covered peaks began to be visible on each side, and the nights were bitterly cold. The people here were wrapped in their long Spanish cloaks, a most service-

able garment for such a climate, where the winds are of an icy coldness.

At one of the mountain stations a party of sportsmen alighted, and I watched them mounting their horses, which were waiting outside in charge of two or three keepers. One of the "guns" carried a large Parrot's cage, in which



KITE'S NEST WITH YOUNG (*Milvus regalis*).

was a "Reclamo," a tame cock Partridge, a Red-leg (our Partridge being unknown south of the Pyrenees), whose call was to be used to attract his kith and kin within reach of the ambushed guns. This is the usual Spanish fashion of shooting Partridges!

Through a gap in the mountains the line passed close to the Escorial, and brilliant uniforms and many ladies

were on the platform of the little station, not far from Madrid.

South of Madrid the country is monotonous in the extreme at this time of year (March) ; a barren-looking plateau appeared to stretch to the horizon, unbroken by tree or shrub. The vines had not yet begun to sprout, and appeared to be so many rows of dead and lifeless stumps.

A few small parties of Swallows and Kestrels now began to be seen, all of them working northwards ; and the farther south the more numerous they became, until by the time Andalucia was reached many Swallows and Martins were noticed perching on the stations and telegraph-wires. Now and then a Bee-eater might be seen, and cactus hedges and aloes bordered the line.

Beggars infest all the stations, which are quite open to all comers, cripples of all sorts and descriptions, and pedlars shout their appeals and call attention to their wares. Some of them sell water—"Agua, agua" ; others oranges, which are cheap and delicious ; and boys run about with trays of fearsome-looking cakes and eatables, of whose composition I know nothing, nor want to—most unholy-looking compounds, which would, I should imagine, make very excellent fly-traps.

The herdsmen and shepherds are invariably armed with long rusty guns slung on their backs, and mostly clad in leather from head to foot, looking much more like brigands than honest men. Appearances are, however, deceptive ; for further experience showed that this class of men were invariably very polite and obliging.



NEST OF BLACK KITE (*Milvus migrans*).

At Gibraltar I waited ten days before the yacht arrived, being delayed by bad weather coming from Cyprus. During the whole of this time I applied in vain for permission to photograph at the adjutant's office. In spite of repeated promises I never got it, and had to leave without having had a chance of doing many things that I wanted to.

Swarms of Kestrels clustered like bees up and down the rugged face of the stupendous cliff of the north front. I was never tired of watching them soaring overhead and listening to their wild, chattering cries. It is possible to climb up the sloping foot of the cliff, and there I could sit and see them hovering or perching on the ledges and crevices of the perpendicular Rock above. In the holes and crannies were many pigeons, and towards evening the Swifts would come tumbling out, to wheel around the narrow streets, uttering their weird screams. The Kestrels, I imagine, must feed largely on beetles, no other food being plentiful enough to support such immense numbers of them.

In the beautiful public gardens on the south side were many familiar English birds, whose notes came at first as a surprise from amid the luxuriant tangle of semi-tropical foliage—from date-palms, oranges, bananas, pepper-trees, and many others, festooned with strange climbing plants, whose brilliant flowers fill the air with sweet perfume and attract numbers of butterflies.

From the parade-ground above these gardens the great bare Rock rears its imposing height from the belt of pines and low brushwood which clothes the lower slopes. Below

lie at anchor the stately warships and large passenger-steamers, which are ever arriving and departing; and across the narrow straits can be plainly seen Ceuta and the African mountains.

Between the north front and the neutral ground there is a wide moat, on which are numbers of Coots and Mallards, feeding and swimming about in the most unconcerned manner within a few feet of the noisy and busy traffic constantly



GREY PLOVERS (*Squatarola helvetica*).

passing along the dusty roads leading to the Spanish lines. Though so tame, these are perfectly wild birds, free to come and go as they like; and they may be seen towards evening flying in from seawards, and, after wheeling round, pitching down on the water.

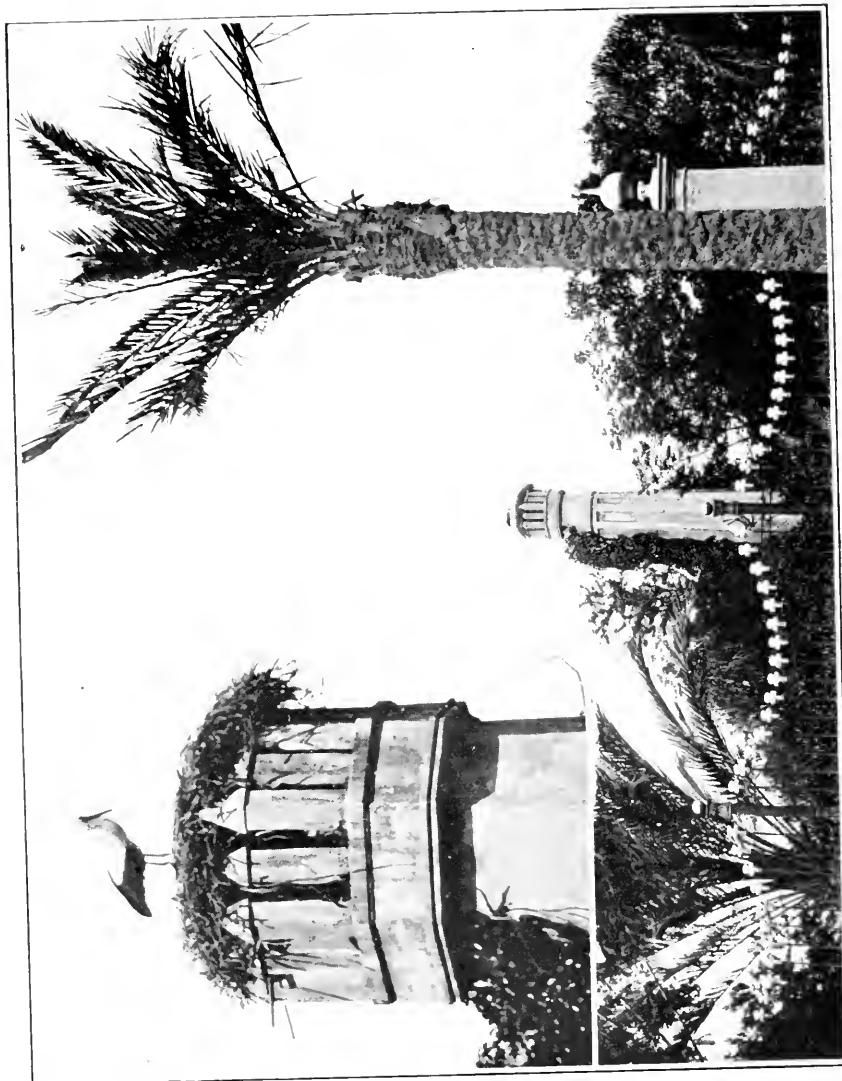
It was reported in the hotel that an Egyptian Vulture was in the habit of daily visiting the officers' mess of the South Wales Borderers, where food was regularly provided

for it. Not having the necessary permit to photograph from the military authorities, I arranged to go up with the local photographer, as he had a commission for some work there, and, passing myself off as his assistant, intended to devote myself to the Vulture. Unfortunately he was prevented from going, and the opportunity was missed.

The fact is, the ordinary civilian in Gibraltar, especially when making a short and temporary stay, is soon made to realise that he is only there on sufferance, which indeed is the case; and unless he has introductions, or is known to the powers that be, he does not stand much chance of doing anything, beyond going over the galleries in charge of a sergeant and inspecting the lighthouse. I could have forgone these sights with much equanimity if I could have seen the Bonelli's Eagles which have nested for many years within sight of one of the signal stations, or the Osprey's nest, or the celebrated apes.

As it was, these were forbidden pleasures; and being unable to do anything on the Rock, I crossed over to Algerciras, and went inland a short distance by train to some cork-woods, at a place called Almoraima.

Leaving the little station, I found myself in very English-looking country: the light, sandy soil was covered with bracken, here and there were small reed-grown lagoons and swamps, and from the oak- and cork-trees could be heard the "Pink-pink" of chaffinches and the notes of many Titmice and Blackbirds. From yonder rose-spangled thicket entwined with honeysuckle came the joyous melody of a Nightingale,

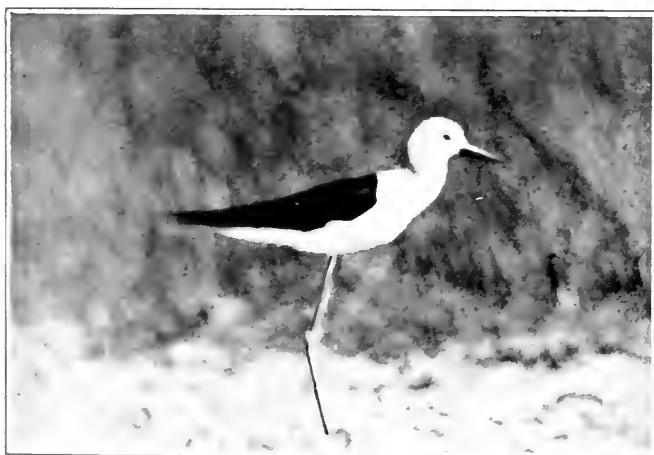


WHITE STORK ON NEST IN PUBLIC GARDENS, SEVILLE.

(The larger image photographed with tele-photo lens from same spot as the one done with ordinary lens of 10 $\frac{1}{2}$ -in. focus.)

and Cuckoos announced their arrival in every direction. But among these sounds were mingled the liquid notes of the Bee-eaters, as they poised in mid-air or perched on some bare twig on the watch for passing insects.

More conspicuous still on the bare branches of the lower bushes were the Woodchat Shrikes, their white breasts shining in the sun, and showing off the rich chestnut of head and back. They are very bold and familiar, much more so than



STILT (*Himantopus candidus*).

the Bee-eaters, which dash off at the slightest attempt at a near approach. Several of these graceful and brightly coloured birds were hovering

ing in front of some holes in a high bank: but so early in the season—mid-April—it did not seem worth while to try to dig out the holes. While watching to find out if the birds were entering them at all, I saw the tail of a big lizard sticking out of one of them.

Lizards and snakes are exceedingly numerous, and run to a very large size. Both are credited with devouring birds and their eggs, and even rabbits; and in their turn they

are devoured by many of the raptorial birds. Very soon after leaving the station a rushing sound behind made me turn quickly, and I saw an Eagle closely pursuing another one, which had firmly gripped in its claws a large lizard. In their excitement they had approached quite close to me. From their white-barred breasts, they were seen to be the Snake-eagle, or Short-toed Eagle—a migratory species which crosses into Spain in the summer to feed on the numerous snakes and lizards, and nests in the cork- and pine-trees.

Passing on the way a roadside "venta," I went in for something to eat and drink. The accommodation in these places is of the roughest, though I had some capital eggs and some sour wine. "Huevos fritos" (fried eggs) are the only things eatable, so far as my experience goes, in Spain.

On entering, I found the host, sun-dried and lean, sitting on a rough bench on the earthen floor of the public room. In one corner stood sundry mules and donkeys, and cocks and hens ran in and out of the open doorway. Just over his head many Swallows were visiting their nests in the rude rafters, perfectly tame and unconcerned. I heard afterwards that only the day before a man had been dangerously stabbed in this same "venta" in a quarrel with a rival over the old man's daughter, probably the same girl who waited on me. However, I knew nothing then of all this, and enjoyed my meal and rest; for carrying a camera over rough country under an Andalucian sun, even in April, is trying work.

On one side of the line a small stream runs, full of

fish, apparently dace, and water-turtles appeared to be very common. Here I saw a Marsh-harrier for the first time, disturbing it from a dead and withered tree which overhung the stream.

A Sandpiper was also seen, which I took to be the Green Sandpiper; and a Kingfisher—the only one I saw in Spain



THE AUTHOR.

throughout my visit. According to Chapman, it is "most numerous in winter." A Blue Tit was noticed nesting in a birch-tree at the waterside. Unfortunately I did not see the Crested Tit, which is to be found in the neighbourhood.

Looking into a small bush for nests, a green tree-frog was espied a few inches from my face, clinging to one of

the upright stalks. It was perfectly motionless, and the curious, compressed form, of a most vivid and brilliant green, was wonderfully inconspicuous amid the leaves. After watching and photographing it, I gave it a slight touch-up, and the thing vanished into the next bush with a flying leap, nor could a close search detect it again.

A pair of the inevitable "guardas" were occupants of my carriage on the way back; and on arriving at the terminus I was requested to move, and then saw for the first time that my next-door neighbour was a prisoner, chained hand and foot, so that he had to be half lifted out of the carriage. He was most likely bound for the convict prison on a small rock-island in the bay.

At last the welcome arrival of the yacht released me from waiting in idleness, and I went on board at once, as glad to leave Gibraltar as I had been to see it on first arrival.

Running round to the Guadalquivir under steam just took up one day, and we made for San Lucar de Barrameda after dark, anchoring off the town, on which we turned the search-light from the bridge, in order to see what sort of a place it appeared.

Early the next morning brought the British Vice-Consul and a letter from friends to whom we had introductions, giving us permission to visit and collect over a celebrated preserve on the property of the Duke of Medina Sidonia; and, according to instructions, we proceeded farther up the river, and brought up again off a rude and rickety landing-

stage. The country inland appeared to be covered with pine-trees. Through the glass many waders could be seen feeding along the muddy edge of the river. The tide in all these Spanish rivers, as well as the Portuguese, runs with amazing velocity: their turbid waters race along with such power and speed that accidents are frequent.

A stern of the yacht were the usual crowd of Gulls, hovering

on the look-out for floating morsels: with them were generally a Kite or two, also on the watch. Both on the Guadalquivir as far as Seville, and on the Tagus off Lisbon, Kites were daily to be seen picking up garbage and refuse from the different vessels. They are much the commonest raptorial bird in Spain, and are the first to be seen wherever you go. The anchor was scarcely down before



LITTLE OWL (*Athene noctua*).

I had landed with all my equipment. With me, to assist in carrying the things, was a luckless valet, who, I fear, did not enjoy himself half as much as I did. I never saw any man more completely out of his element, when afterwards, up to my knees in water, busily engaged in photographing a large flock of Dunlins in a driving rain-storm, I looked round and saw him vainly endeavouring to find shelter under a pine-tree, which afforded about as much

shelter as a big cabbage-stalk, with my waterproof over his arm. It was no good to me, as I was already soaked to the skin, and was, besides, too busy to go for it, so I shouted to him to put it on himself; but when we finally returned to the yacht, he shivered and shook and looked such a picture of utter misery that I had to get him



NEST OF PURPLE HERON (*Ardea purpurea*).

a stiff "go" of brandy to put a little life into him again. While engaged in the thick of this storm, I was surprised and disgusted to find myself hailed from behind, and, turning, saw two mounted keepers with guns shouting to me. On showing them, however, a letter from their employers, they said no more—though, as it

was in English, they could not have understood a single word of its contents.

On first landing here among the pine-trees not many birds were seen, only a few Kites and an Eagle, and accordingly we turned along the shore, where were some Avocets and



TWO NESTS OF SPOONBILLS (*Platalea leucorodia*).

Redshanks. They were, however, very wild, and there was no appearance of their having begun to nest.

Following the muddy banks of a small creek led us to some marshy ground grown over with immense rushes, from which we disturbed some half-wild pigs. Presently small waders, like Dunlins, Knots, and Ringed Plovers, began to be more numerous, and large flocks of birds could be seen in

the distance, over what appeared to be a large sheet of water; and we soon found ourselves standing on the shores of a vast inland lake, divided at the horizon from the sky by low pine-trees. The nearer shores were alive with flocks of birds busily feeding, the Dunlins especially almost regardless of our presence as they ran about over the mud and explored all the



LITTLE EGRETS (*Ardea garzetta*) IN NESTING COLONY.

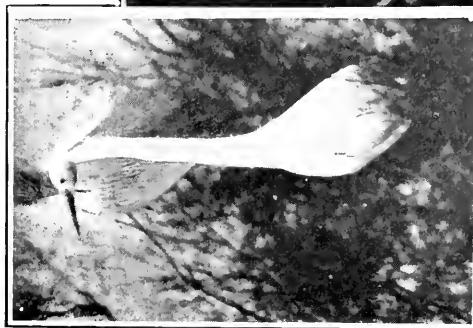
little creeks. Godwits and larger birds waded in the farther shallows, while Gulls and Terns flew overhead; but the chief interest was centred on the Flamingoes, which stood in long lines along the farther shore exactly like regiments of soldiers.

Then it was realised that we were really in the marisma which we had come to see, and that all we had read and heard about the wealth of bird life was more than true.

The scene was one full of interest and animation, and I enjoyed it to the utmost. I was soon hard at work, and found that after a while the birds were too busy to take much notice of me crouching behind the camera enveloped in my green cloth. The weather, however, got so bad, and the wind and rain so heavy, that it was impossible to work, and we returned to our ship in a rough kind of punt, exceedingly leaky and rickety, pulled by two natives, arriving in a very dripping condition.

On board we found a Spanish "shikari," sent by the friend to whom we owed the privilege of working in this paradise for naturalists, as guide, factotum, and assistant generally; and a first-rate fellow I found him, always obliging and willing, and with a good knowledge of the local birds and beasts. He could also skin birds and blow eggs, and altogether was a great acquisition. Not one word of English, however, could he speak; it is, in fact, unusual to find any Spaniard outside the large towns able to speak anything except his own language, and not very usual there.

The next day we had a long round through the piñales and over the sand-dunes, and after a while came to a Kite's nest up at the top of a big pine-tree. As I was very much out of condition, and it was a stiff climb, all swarming to the top, I suggested he should tackle it, and gave him a back till he was standing on my shoulders, and then I pushed his feet up as far as I could reach; but as soon as this support was withdrawn he came tumbling down again. As a climber he was a dead failure, though it is only fair to say that he had a nasty cut on one hand.



LITTLE EGRET (*Ardea garzetta*) AND NEST.

His failure made me determined to get up somehow, whatever happened, and I got him to give me a back. Finally, after a hard struggle, I reached the nest, somewhat to my own surprise. Unfortunately it was empty: but we soon found more nests, and that afternoon I successfully tackled nine pine-trees, taking altogether three clutches of Kites' eggs.

I shall not soon forget the pleasure experienced on looking into my first Kite's nest, and seeing the three great round eggs, so richly spotted and marked. All the nests were lined with horse-dung, and without exception contained a bit of rag of some description and a piece of newspaper. One such piece I still have, containing an account of the Cretan War, which was going on at the time.

There are two species of Kites—the resident Common Kite, "Milano real" of the Spaniards, and "Milano negro," the Black Kite, a migratory species. The eggs of these two are indistinguishable, and in order to identify them it is necessary to make sure of the birds. The flight of both is magnificently easy and graceful, as they glide along, steering themselves by their long forked tail, which is in the Black Kite less deeply cleft: and the bird is somewhat smaller and more dusky-looking, as seen from below.

On one nest, in a large cork-tree, the bird remained while I was climbing up to it, and I did not know she was there. On getting my head above it and looking in, I was considerably astonished at seeing the nest, as I thought, unfold a big pair of wings and fly away. My eyes, in fact,

were so close to it that I hardly realised at first what I was looking at. There were two young birds, clad in dirty white down, one much larger than the other. The interior of the nest—or rather the surface, for it was only a rough, flat platform of sticks—was covered with horse-dung, which was perfectly alive with maggots. The young birds' crops were very full, as also their larder; for the nest contained an eel, the tail of a rat, a Green Woodpecker, and a Redshank.



LITTLE EGRETS (*Ardea garzetta*).

This cuts a sorry figure, however, with the larder in a Welsh Kite's nest, as found by Lord Aberdare, and recorded in the *Zoologist*. A drowned puppy, a rabbit, and the hind-quarters of a small pig indicate a liberal scale of housekeeping, compared with which the Spanish larder appears quite mean and poverty-stricken, as befits, perhaps, a poor and poverty-stricken country.

(It was from a Spanish newspaper found in a Kite's nest

that Lord Lilford first learnt the news of the assassination of President Lincoln.)

Descending the smooth, branchless trunk of one of these pine-trees, with three Black Kite's eggs in my coat-pocket, I had the misfortune to slip, and landed on my back. However, there was no damage done, except the breakage of one of the eggs, which made a great mess in my pocket. It might have been worse, though.

These eggs of the Black Kite and Common Kite, together with two clutches of Magpies' eggs, were all we found on this day: but I was perfectly satisfied and well content.

We found on our return that one of the sailors had brought in two large round white eggs from a nest in a pine, which he described as lined with grass and containing a rabbit. These were subsequently submitted to a great authority on Spanish ornithology—Mr. Howard Saunders—and were by him pronounced to be those of the Booted Eagle (*Aquila pennata*).

The Imperial Eagle is found also among these pine-trees, and we saw several. They were described by Benitez as "Aquila real." We came across an immense nest on the extreme summit of the largest pine-tree I ever saw. I was too tired even to attempt it: and without rope or climbing-irons it would have been impossible to ascend, as the tree was much too large to clasp. The nest was, besides, probably empty, as these birds breed very early, beginning in January. An immense primary feather was lying on the ground below, the only evidence seen of the birds.



GLOSSY IBIS (*Plegadis falcinellus*) AND NEST.
(The bird in front is a Buff-backed Heron.)

The Golden Eagle and Bonelli's Eagle are confined to the sierras during the nesting season, and nothing was seen of either of them.

The next day was spent steaming up the river to Seville, where a stay was made of several days. The scenery, as seen from the Guadalquivir, can hardly be described as

interesting or picturesque to anybody but an ornithologist. To us, however, there was much to watch for and plenty to interest.

Where the river divides and forms the Isla Mayor we could from the bridge look across a flat expanse of marsh and shallow water, in which were standing whole battalions of Flamingoes in flocks of hundreds. Here and there on stacks and buildings



BUFF-BACKED HERON (*Ardea bubulcus*).

could be seen Storks standing by and sitting on their nests. Sometimes the shores and the edge of the water, when shallow enough, were black with hundreds of cattle drinking, for this is a famous grazing-ground for the bulls destined for the national sport of the bull-fight. In one place we saw thousands of Sand-martins resting on their passage north, and several large flocks of Starlings were noticed.

On the muddy banks in the lower reaches were numerous Avocets, Curlews, Godwits, Redshanks, Grey Plovers, and other waders. These appeared to be mostly on passage; for on one day a particular species may be very prominent, and on the next there will be none of it to be seen, and some other will be equally numerous. Flying past were Pratincoles and Whiskered Terns, with Marsh and Montague's Harriers and numerous Kites. Where the river narrowed as we advanced farther up, the banks were covered with thick reed-beds, from which came the well-known harsh and grating song of the Great Reed-warblers: while from the bushes we heard a strange and unfamiliar song, which, while it reminded us of the Nightingale, was evidently from some other and unknown musician.

At last we reached our destination, and moored in mid-stream near to several English cargo-steamers.

Seville and its attractions I must leave to abler pens to do justice to.

“Quien no ha visto Sevilla, no ha visto maravilla,” says a well-known Spanish proverb, and a very true one. For he who has not seen Seville has indeed missed a marvel. It is, I think, the most picturesque place I ever saw, and contains some gems of Moorish architecture. Storks were nesting on one at least of the churches, and there is another nest on the summit of a tower in the public gardens. There was also one on the top of a dead tree a few miles below Seville. A strong migration of Wry-necks appeared to be passing through Seville: the gardens

in every direction were full of them, and their note resounded on all sides.

On April 30th, 1897, the yacht left the Guadalquivir, bound for Gibraltar, Malaga, and Tangiers.

Benitez had a few days previously been sent to make arrangements for food, wine, bedding, and other necessaries for a fortnight's stay up in the Coto, and accordingly he and I were landed on the quay at Bonanza on the way down. Here we found a large open cargo-boat, into which we stowed away our luggage and ourselves, and were soon running up against the strong tide under an immense lateen sail, and in a short time landed again higher up the river. While our goods and chattels were being landed by the Spanish crew Benitez vanished among the pines, presently returning with a pack-mule for the luggage and himself, and a horse for me.

Then I had my first experience of the carrying capacity of the Spanish mule. It seemed almost impossible for any one beast, short of an elephant, to have carried all our packages, -some large and cumbrous, bedding and such things; others exceptionally heavy, full of photographic materials, plates, and so on. But one by one they were all stowed away in the two huge pack-saddles, and, when these were full, piled on the top and made fast with ropes. As each package was hoisted up, the beast only straddled his legs out a little farther apart to support the weight; and then, when all was securely fastened, Benitez was hoisted up by the boatmen, and perched himself on top of everything. The load was one which far exceeded the mule itself

in bulk, and would have been a tremendous load for an English road.

But how can I describe the track along which we journeyed for four or five hours? Actual road there was none, but a barely visible track wandered along through pine-forests and thick prickly scrub, skirting round impenetrable thickets and morasses of unknown depth. Often the heather came over our heads: sometimes we ploughed along painfully over an endless succession of sand-dunes, through whose



NIGHT-HERON (*Nycticorax griseus*).

loose surface our animals sank fetlock-deep. Many miles of the way were through thick and most tenacious mud, whose surface was not yet dried into the brick-like hardness of those parts from which the water had earlier receded. There the

surface was split up into countless cracks and reticulations: but here every footstep sank deeply, and it was with difficulty the beasts were able to drag their feet out again. Sometimes, again, we waded through shallow water or deeper creeks, where it was as much as we could do to cross without swimming. And this was what Benitez had described to me as a good road—"un bueno camino"! I believe he really in this case lost his way, for we returned afterwards in much less time, and the going was certainly better.

I do not believe that there is a decent road in the whole of Andalucia. If there is, I never saw one: even in the large towns the streets are bad enough. There is no wheeled traffic possible from place to place. Everything is carried by pack-mule, or "borrico," strings of donkeys being often met with in the most out-of-the-way places, laden with goods: and all travelling is done on horseback.

Our progress, as we plodded along, was sometimes amid the familiar cries of Lapwings and Redshanks, mingled with those of stranger birds. We now passed for the first time numbers of Stilts wading in the shallow water. They allowed us to ride within a few yards, and when they flew their extraordinary long red legs were stretched out straight behind. Pratincoles flew round, looking on the wing like huge Swallows. Eagles and Kites soared over the pine- and cork-trees, and in the more marshy spots we were accompanied by Black and Whiskered Terns. Around every group of cattle and half-wild horses, feeding on the succulent water-plants, and often perched on their backs, were numbers of



BUFF-BACKED HERONS (*Ardea buettikoferi*) AND NEST.

the pretty Buff-backed Herons. They feed on ticks and other insect parasites, from which their Spanish name is derived — "Agarrapatosos" (Tick-eaters). Besides these, we saw plenty of Storks, Ibises, Little Egrets, and Purple Herons.

For the last hour or so of our journey we had seen in front of us over the marsh a large white house, surrounded by a few trees. This proved to be our destination. The house, like all Spanish houses, is built in a square, enclosing a large open space, or "patio." The entrance was a large arched doorway, high enough and wide enough, when the thick and massive double doors, studded with iron bolts, are thrown back, to allow three mounted men to ride in abreast without stooping. A camp-bed was soon unpacked from the long-suffering mule, and rigged up in an upper room, and the baggage carried up, and presently a hot meal and a wash made things seem comfortable.

The house is in an ideal position for ornithological work, on the very edge of the "marisma," where it first begins imperceptibly to merge into dry land. Behind are sand-dunes, pine- and cork-woods, and vast heather-covered wastes. From my window every evening I could see the flocks of Egrets and Herons wend their homeward flight, followed by strings of Glossy Ibis, looking intensely black against the glow of the sunset sky. Every night I was serenaded by a pair of Barn-owls, which often sat on the balcony outside my window. Their uncanny cries could be heard far into the night, together with the cat-like mew of one

of the smaller Owls—I think a Scops-owl. In the early mornings the first sound to greet my ears was the familiar chatter of Starlings. These, however, are not our English Starling (*Sturnus vulgaris*), but the unspotted Sardinian Starling (*S. unicolor*), which have a very glossy appearance in the bright sunshine: otherwise their habits, nest, and eggs seem to be identical with those of our well-known bird.

Each morning we used to start off at about eight o'clock: myself, the guarda-mayor, Augustin, and another guarda, Manuele, on horseback, with Benitez on the mule—"el mulo maldito," as he used to call it—in whose capacious paeks were stored away cameras, plates, water-bottles, wine, food, and wading-trousers, together with two large baskets for eggs.

It is impossible to get along without horses, and it was a novel and not unpleasant experience to go bird-nesting thus mounted. Sometimes for miles we rode through water from six inches to three feet deep. In the dry plains the bushes were too thick and high to permit of our penetrating far afoot. The bracken and heather grow to a height unknown in England, and the numerous muddy creeks and swamps would have been impassable without horses. These are small, wiry, and unkempt-looking beasts, on which one sits perched up high on a peaked Spanish saddle covered with sheepskin, and provided with stirrups like huge triangular iron boxes. The bits are cruel and very powerful, and have to be carefully used by strangers. My horse would always go off full gallop every time the slightest

pressure was put on the bridle. The very first time of mounting him, on taking up the reins he started buck-jumping, and tearing round as hard as he could go; and the harder I pulled the faster he went. Benitez, perched on his mule, shouted to me in Spanish; but I was too much occupied to understand him, until presently I began to realise that he meant me to slack off the pressure on the bit. On my doing so the beast quieted down directly and went all right. But if ever he stumbled over the rough sun-baked mud, and I tried to pick him up with the bridle—an instinctive habit I could never break myself of—he would invariably go off at full gallop as hard as he could pelt; and I daily expected to get my neck broken in one of these wild outbursts over hard mud, pumiced into innumerable deep holes, where the cattle had trodden it when wet and soft. But all Spanish horses are wonderfully surefooted, and we never came to grief, however dangerous the ground. The finish up of every day's work was a race home with Augustin, as soon as the house became visible and the ground fairly level. In these races my horse invariably came in first, and the pace he could go over any description of ground was astonishing.

For tree work being mounted is a decided advantage. Standing on the saddle enables one to investigate many holes which would otherwise only have been reached by climbing, and would often bring one within reach of a branch if the tree had to be ascended, and even if there were no branch the height thus gained made a good start. On



NEST OF NIGHT-HERON (*Nycticorax griseus*).

coming down I always found the horse where I had left him, so that I could slip into the saddle and ride off to the next one; while eggs could be picked up from shallow water, and even from level ground, without the trouble of dismounting.

On one occasion, while standing on my saddle to peer into a large hole in a cork-tree, I saw in it two Barn-owls, which were standing side by side in their usual sedate and contemplative attitudes. One of them flapped out in my face, and the other was grabbed before it could make its escape. There was no nest, nor any sign of eggs, and my captive was soon released. Soon afterwards another Barn-owl flew from a hole at the end of a broken branch, in which we found freshly hatched young, clad in pure white down. The Barn-owl ("Lechuza") is very much disliked by Spaniards, who view it with the same superstitious alarm with which it is regarded by the ignorant of most European nations.

The old cork-trees were nearly always full of holes, which serve as convenient nesting-places for numerous Jack-daws, Rollers, and three different species of Owl. Underneath the soft spongy bark the wood is intensely hard, but in spite of this the Spanish Green Woodpecker (*Gezinus sharpii*) bores large holes down into the interior.

We never succeeded in getting eggs of this Woodpecker, though they are exceedingly common, but twice found their holes occupied by Little Owls. In one were four eggs, and in the other we caught the old bird, which was reluctant

to leave her freshly hatched young. After replacing the youngsters and releasing her, she at once scrambled in after them again. I have since often wished I had kept these quaint-looking little objects—the whole family, in fact. Owls are very easily reared and kept in confinement, and I have had several kinds at different times, and found them very amusing. The odd contortions and grotesque poses of the Little Owl are above all irresistibly funny.

Soon afterwards a Roller was seen to leave a hole in another cork-tree; but we were quite unable to make any impression with any tools in our possession, and were in consequence unable to reach the eggs. These birds tumble about in the air and behave in a most extraordinary manner, making the whole time an indescribable racket. The first one I saw puzzled me: to all appearance the bird was stark staring mad.

Birds of all sorts are always to be found in numbers round these old cork-trees. One group of magnificent trees, under whose welcome shade we had stopped to lunch, was, I remember, fairly alive with birds. Many Little Owls flew from the numerous holes and cavities; Woodpeckers were to be seen, as we rode up, climbing nimbly all over the great gnarled and twisted branches; and a large colony of Jackdaws were busy nesting. We found many nests full of eggs: one of them being among the roots underground. Among these trees the only Hoopoe and the only Great Spotted Cuckoo seen during my visit were observed. The former appeared to have left a small round hole about

thirty feet up one of the smaller trees, but on climbing to it there was no appearance of any nest.

Soon after starting on our first day, a colony of Spoonbills were seen nesting among the reeds about fifty yards from the shore in a lagoon. The white plumage of the



NEST OF RAVEN (*Corvus corax*).

birds could be seen through the thick growth, as we rode along the edge of the water. One of the men was sent round for a punt not far away, while we dismounted and hobbled the horses. By the time the camera had been got ready and wading-trousers got into, Manuele had arrived with a rickety, flat-bottomed affair, called a "lancha," in which

I was paddled over to the nests with some difficulty. There were about a dozen, of exactly similar appearance and construction to those I had seen in Holland,—flat, rough platforms of dry yellow reeds and sticks, just raised above the surface of the water, which was rather deep—quite four feet. Each nest contained eggs, two, three, or four in number, which varied considerably in shape, some being very rounded, and others, again, remarkably elongated.

I was soon overboard, and astonished Manuele considerably by telling him in Spanish, as well as I was able, to go away, but had the usual difficulty in making him understand that I wanted him to go right away out of sight and hearing. I was most anxious to photograph one of these birds at its nest, and it was obviously useless for me to hide up while he was pottering about in a punt within sight of them all. However, at last he was made to understand what I really wanted, and he departed, very unwillingly, being, I dare say, very doubtful of my intentions.



BEE-EATER (*Merops apiaster*) ON TOPMOST TWIG OF A CORK-TREE.

As soon as he had really gone, after cutting down some of the reeds round the most exposed nests, which were utilised in making a screen to hide myself and the camera, I waited as patiently as I could, standing in the water and crouching behind my improvised shelter for about three or four hours. All this time the Spoonbills flew round and round overhead. At first their circles were very wide and high in the air: but gradually they came closer and closer, and lower and lower still, till presently they were skimming along just over the reeds, and, when passing their nests, would drop their legs, as if going to alight. But their minds would misgive them, and round they would go once more.

At last, however, first one and then another actually alighted, until I could see seven or eight Spoonbills standing on their nests all round me, their crests waving in the wind, and their orange gorgets plainly visible. Between us, however, were too many reeds waving about in the wind to make a successful photograph possible. The birds which belonged to the nest I was waiting for obstinately refused to alight, being evidently suspicious of the clearing I had made: and, after waiting so long, part of the time in a heavy rain-storm, I was eventually obliged to give it up and signal for the punt.

While waiting in ambush here, a Purple Heron had been noticed in an isolated clump of tall rushes at a little distance. The water was too deep to permit of approaching it until the arrival of the "lancha," when we found there a nest and five eggs.

On returning to dry land, we found Benitez and Augustin hard at work blowing a large basketful of Purple Herons' and Coots' eggs.

Leaving the Spoonbills, an hour's further ride over an endless succession of sand-dunes brought us in sight of another lagoon, surrounded on all sides by sand, which appeared to be gradually filling up the water. As our cavalcade rode up, some low tamarisk-bushes, growing thickly massed together in the water, were seen to be crowded with immense numbers of white birds, which, as we approached, rose into the air in dense clouds, circling round with a great deal of noisy clamour and confusion. It was a most extraordinary and interesting sight: and I realised that in front of us was a breeding colony of the Southern Herons, which are such a characteristic feature in the bird life of this aquatic region.

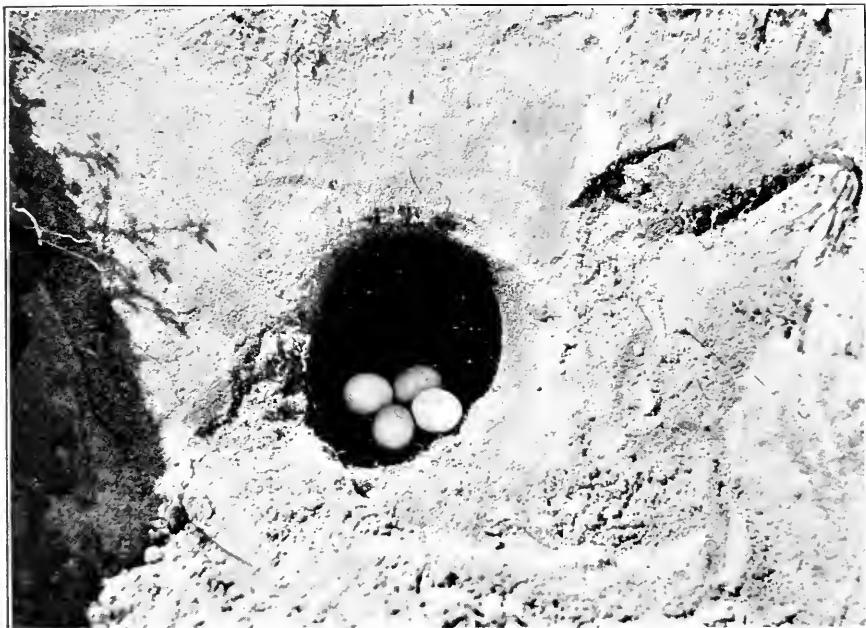
There were Buff-backed Herons in thousands. These alone were well worth the journey to see, for they breed nowhere else in Europe: and with them were countless numbers of the lovely and graceful Little Egrets, which have suffered so much persecution on account of their beautiful plumes, the demand for which has almost exterminated them in more accessible localities.

Squacco Herons were not so numerous, though I did see a few of these beautiful little birds: and there was quite a goodly number of Night-herons and Glossy Ibis.

Seeböhm's most graphic description of a somewhat similar nesting colony on the Danube came into my mind as I gazed on the animated scene before me, and I appreciated then,

more even than I had before, the truth and power of his descriptions.

The horses were off-saddled, and I was soon in the waders

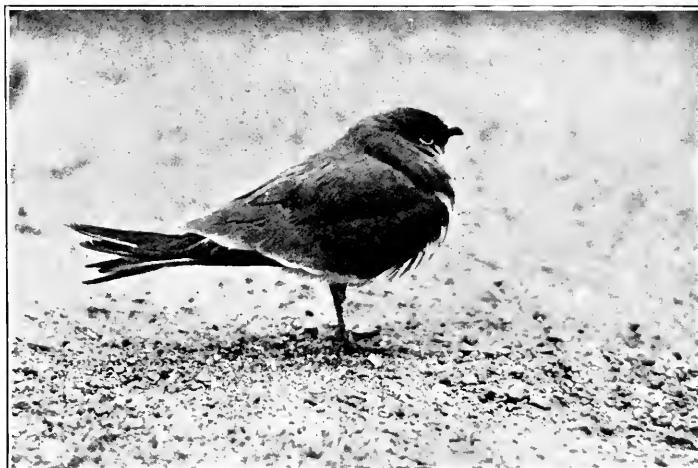


END OF BEE-EATER'S NESTING BURROW (*Merops apiaster*).

and hard at work photographing the birds, as they clustered thickly on the topmost twigs of the bushes in all sorts of grotesque and curious attitudes. As soon as one bird had grasped a slender twig in its awkward-looking feet, and while still struggling to preserve its balance in the high wind, another one would fly up and knock it off, only itself to be ousted by a third a moment afterwards. Others were constantly flying round and attempting to settle, and

each individual bird added its quota to the unceasing babel of extraordinary croaks, grunts, and groans with which all the Heron family express themselves. The sand-dunes around were also thickly covered with masses of birds, which would every now and then again rise and circle round and round, protesting with all their might against our intrusion into their own particular domain. The bushes were full of their nests—mere slight platforms of sticks—but there were as yet no eggs.

My work on this first day came to a most untimely end; for leaving the camera on its tripod in the water, while I went ashore for a fresh supply of plates, during my



PRATINCOLE (*Glareola pratincola*).

absence it blew over into nearly four feet of water. Trying to raise it, I got my bag of dark-slides wet; and, in consequence, every plate I had exposed was wasted. The gelatine

films swelled with the wet, so that I had to smash the plates into pieces before I could get them out of the slides. We had a long ride home that day in a complete state of saturation.

However, I had two more days' work in this lagoon, and obtained photographs of most of the birds and their nests.

On May 5th we took plenty of eggs of the Buff-backed Herons and Egrets, and by the 8th the Night-herons, Squacos, and Glossy Ibises had laid.

These last birds had an intensely black and funereal aspect amid the throngs of whiter birds. I do not know whether their Spanish name, "Morito," has anything to do with this idea. It always struck me as being possibly derived from *mors* (death). It would certainly be appropriate, though in reality there is no black at all in their plumage, which is altogether glossy green and brown. They are birds of extremely powerful flight; the noise made by the wings of quite a small party of them when flying past is perfectly astonishing. They lay eggs of a very dark greenish-blue colour, which have a somewhat pointed shape.

The eggs of all this group are easily distinguishable one from another, though they are all of different shades of blue. Those of the Buff-backed Herons are pale in colour, and rounded, while the Little Egrets lay eggs pointed at both ends. They are, besides, smaller and somewhat darker. The Night-heron's are also elongated and very pointed, more so even than the Egret's, but are much larger in size, and as pale in colour as the first named. The



A PAIR OF LITTLE EGRETS NESTING.
(*Egretta Garzetta*.)

Frontisp.

Squacco's eggs are pale, very round, and by far the smallest of them all.

We were not fortunate enough to find any nests of the Bittern ("Ave toro") or the Little Bittern, both of which are common enough. Plenty of Mallards and Coots were observed while we were at this heronry, and a Little Grebe was also seen. The loud song of a Great Reed-warbler also claimed our attention, but a thorough search among the reeds failed to find any nests. In fact, nowhere in Spain did we find a nest of this common Warbler, the reason probably being that they nest later. They are certainly late breeders in Holland, and our own Reed-warbler always seems to me to wait until the reeds have well grown up before it begins to make its beautiful home.

No account of this district would be complete without a mention of the sand-dunes, which are such a striking feature of the country. They appear to be encroaching fast on the forests and lagoons, the fine particles carried by the wind filling up the latter and burying the former.

On the dazzling surface only broken by tall tufts of sea-pinks and the yellow-spangled cistus-bushes, are many tracks of various birds and animals. The curious footprints of the Stone-plover, or Thick-knee, are very numerous, and several clutches of eggs were found on the bare sand. Here is the slot of a passing red deer, and the curious track of the lizard, and there the serpentine trail of a snake. One mark puzzled us for a long time, until an accident revealed its origin. It looked as if some animal with many feet

had passed over the loose surface; but the sight one day of a large pine-cone being rolled along by the wind plainly revealed the cause of the mysterious track.

These pine-cones, by-the-bye, are largely used as fuel in some parts. Large piles of them may be seen exposed for sale in the market-place of Coruña, and doubtless in other places also. In one hollow among the dunes the surface of the sand was covered with pieces of broken pottery, most of which appeared to have been rudely engraved. A short search resulted in the finding of five bronze coins, very much abraded and corroded. One of them showed the impression of a head and some letters of an inscription, and all were apparently Roman. The most curious feature about these dunes is the extraordinarily abrupt fashion in which they terminate and hang suspended, as it were, over the country below.

The foot of the steep slope of sand may reach, perhaps, for a foot or a couple of feet up the stem of a pine-tree, while half-way up other trees are seen to be buried up to half their height and some only have the top branches visible; these show by their green foliage that they are still alive



STILTS (*Himantopus candidus*) FEEDING.

and struggling for existence in the death-like grip of the all-devouring sand. A few more years and their dead branches will protrude in the midst of a sandy desert, withered and bleached with exposure until they are finally engulfed and lost completely to sight. If in future ages this covering of sand should be removed, the sight would be very weird and curious, and would no doubt afford endless speculation and give rise to many ingenious theories among the learned of those days.

In one of the pine-trees at the foot of one of these threatening slopes we found a Raven's nest. This was at the summit of the tree and strongly compacted of sticks, and the deep hollow very thickly and comfortably lined with red cow-hair. It contained five eggs, as did also another nest not very far away. In the same forest was a Stork's nest on the extreme summit of one of the pine-trees, and on it, against the sky, we could plainly see two young birds and both the parents. These forest-building Storks are always very shy, and much more difficult to approach than those which frequent the towns and houses.

There was another nest in a large dead cork-tree not far from the house, which overlooked a small muddy creek or marsh, in which we generally noticed in passing many Storks feeding, and an occasional Purple Heron or Egret. Crawling into position one evening, and hiding among the bracken, which was about six feet high, I had the treat of watching a flock of about fifty Storks feeding. The great birds solemnly stalked through the shallow pools, feeding

like a flock of geese. Sometimes two of them would quarrel and spar up to one another with their great red beaks, making a great clattering.

In the midst of a patch of reeds between me and them I saw the long thin neck and the bright eye of a Little Egret looking warily around, as if to make sure there was no danger near. Seeing nothing, it stepped slowly and gracefully into the open, and commenced to feed. But suddenly all the birds looked up, though I could neither see nor hear anything to alarm them. All the Storks took to flight, and the Egret retired into cover as quietly and noiselessly as he had emerged. The stampede was presently explained by the sight of a mounted herdsman, "garrocha" in hand, homeward bound. A picturesque figure he looked, but a very unwelcome one to me.

The herds of cattle are tended throughout the day by mounted herdsmen, armed with a heavy iron-tipped club, or with the "garrocha," a kind of short, blunt lance. I never knew the bulls to interfere with anybody. I have often ridden through them and walked close past them, carrying the camera, without attracting any unwelcome attentions. But one evening, as Benitez and I were riding home, he pulled up his mule suddenly and motioned me to stop, saying "El toro" (the bull), as a small herd of cows and calves, followed by a magnificent black-and-white bull, crossed the track a few yards in front of us. Whether this particular bull was known to be of a bad character I do not know, but on this occasion, at any rate, he trotted quietly

after his seraglio without deigning to take the slightest notice of us.

On the level plains Bee-eaters were constantly to be seen. Their *modus operandi* appears to be something similar to that of the Flycatchers. Instead of keeping constantly on the wing like the Swallows, they sit on some bare twig



NEST OF STILT (*Himantopus candidus*).

or branch, on the look-out for passing insects, and dash out after them, returning either to the same or to some other perch. Their burrows are to be found in banks such as at the side of a river or road, and also on the level ground. One day we borrowed a spade from a herdsman's cottage and dug out several holes. The soil was a very light, sandy earth, covered with scanty turf. The burrows were

about four feet long ; and the egg-chamber—for they make no nest, but lay four round, shining white eggs on the earth at the end of the hole—was generally about two feet below the surface. The holes may be easily found by the heap of freshly excavated soil at the entrance, from the amount of which a rough guess may be made of the length of the hole, and whether it is worth digging out. Three or four of the birds were caught in the burrows : two I released : the others, on dissection, proved to be males.

Encircled by the shallow water of the marismas are numerous small islets, on which grow sometimes a scanty crop of thistles and samphire. To these desolate spots in the month of May myriads of wading-birds resort to lay their eggs on the baked and sun-dried mud. In such places the Pratincoles deposit their curiously coloured eggs under a tuft of samphire or in the footprint of some horse or ox. They are very rounded, and thickly spotted with rich, dark markings, and have an almost velvety appearance, which makes them utterly unlike the eggs of any other bird. There is no attempt at any nest.

These birds have a habit of settling on the ground in front of anybody. While riding, I have known twenty or thirty of them to settle repeatedly in front of my horse, rising with a strange cry on a close approach, and settling again farther on, and repeating the performance over and over again. On the dried mud they are practically invisible, unless the white chest can be seen, for the upper parts are the exact colour of the ground. The gape of the mouth is a bright sealing-

wax red. On May 4th they had just commenced to lay, and a few days later we could have taken hundreds of their eggs.

In the tufts of samphire and coarse grass were many Redshanks' nests, and with these there was much more attempt at concealment, the eggs being more or less hidden by the canopy of green above them.

In company with the Redshanks were invariably many Stilts, the two species nearly always being found together, both while nesting and feeding. In their habits, too, they are very similar, except that the Stilt is a much quieter bird when breeding. I have seen with them none of the noisy excitement which is so conspicuous when the breeding-ground of Redshanks is invaded.

The Stilt is a particularly beautiful bird. As Seeböhm truly says, "they look the perfection of beauty and grace"; and it was one of the most interesting experiences of this expedition, to watch them running over the mud and wading in the shallow water. They were exceedingly numerous—I should say the most abundant species in this locality, so prolific of bird life.

On May 3rd, before we had ridden more than a mile, Manuele, who was riding somewhat in advance, pulled up and hailed me with the shout, "Un nido" (a nest). On reaching the spot, I saw my first Stilt's nest. It was a solid construction of tamarisk stalks and small twigs, built up from the bottom of the water, about ten inches deep. This was spangled with numerous delicate white blossoms like water-crowfoot, and thinly grown over with a spiky

grass or rush. It held four very richly coloured eggs, pointed like Redshanks'.

After photographing the nest *in situ*, I attempted to wait for the old bird; but there was no cover whatever, and I did not succeed—more especially as the three Spaniards were riding about searching for more eggs. I could never



NEST OF STILT (*Himantopus candidus*).

make them understand that the photographs were more important than the eggs. The eggs were, I suppose, more tangible objects to them, and they were certainly indefatigable in assisting me to the utmost of their powers.

Curiously enough, this first nest was the only one seen in the water. All the others—and we found hundreds of them—were on the mud, and the nests were very much

slighter. In any small hollow in the sun-cracked surface the birds would make a neat lining with a few stalks, and on these the eggs would be laid. In one we found five eggs, but four was the usual number. The nests were always in small colonies, not necessarily close together, but scattered over a limited area of ground.

The birds are tame and fairly easy to approach. When mounted, you can ride close to them without their showing any alarm; but they do not allow a man on foot to take such liberties. However, if you remain quiet, they do not mind coming quite close.

A male bird dissected by me had in its stomach some green caterpillars. The measurements of this bird coincide exactly with those recorded by Gilbert White of one shot near Selborne:—

Total length, beak to tail	.	13 $\frac{1}{2}$	inches.
Beak	.	2 $\frac{1}{2}$	"
Bare part of tibia	.	3 $\frac{1}{2}$	"
Tarsus	.	4 $\frac{3}{4}$	"

Frequently, when exploring this waste of waters, we would come on a colony of Whiskered and Black Terns, nesting in company together. Overhead the birds would gyrate, with the harsh scolding remonstrance usual with all the Terns under similar circumstances. Seen thus from below, the Whiskered Tern appears of a peculiar leaden tinge.

Their nests are very slight, mere floating rafts of green

rushes, laid flat on the water, so that the eggs are half awash. These are of a decided green colour, very darkly and richly spotted; and very pretty they look on their green raft, surrounded by the white crowfoot blossoms. Three eggs are laid. The colour fades very much after the eggs have been blown and kept a short time.

I dissected one male bird, and found in it an entire green caterpillar, two inches long, and the remains of another one. The irides of this bird were brown, the legs and feet dark red.

The nests of the Black Terns, which were not nearly so numerous as those of the larger species, were much more solidly and substantially made, built up from the bottom, and rising higher above the surface of the water.

Both the Caspian and Gull-billed Terns are recorded as nesting in Spain, but no nests of either were met with.

Avocets, though they had been so numerous on the Guadalquivir, were not met with at any distance away from its banks, and appear to nest later than the other species. I particularly enjoyed the opportunity of renewing acquaintance with this charming wader, the most elegant of an elegant family, whose dainty ways, graceful attitudes, and beautiful plumage I had so much admired on my visit to Holland the previous year.

While feeding on the mud-flats of the Guadalquivir, we found Avocets very tame and easy to approach. In the small electric launch belonging to the yacht we could almost get near enough to touch them with a boat-hook, as they ran



FLOATING NEST OF WHISKERED TERN (*Hydrochelidon hybridia*).

over the shining surface of the tidal ooze. We noticed that they constantly hop about on one leg, as if lame.

Until the close of our stay there appeared to be no indications of their having begun to nest. In fact, not before May 15th, the very last day I set foot in Spain, did we find any of their eggs; and then it was quite at the end of a long day's search that Benitez called out to me that he had at last found a nest. There were altogether, in this spot of quite a limited area, about a dozen nests. Most of them were made of the beautiful rosy feathers of the Flamingoes. A large flock of these birds had been feeding close to the spot, and numbers of their feathers were lying about and floating on the water. This beautiful and unique nesting material gave them a very striking and effective appearance.

Only one nest contained four eggs, which was the usual clutch in the Dutch nests; the rest of them held but three. The eggs are somewhat larger than those of the Stilt and Redshank, and are of a duller clay colour. Numbers of the birds were wading in every direction, but were not so easy of approach as those on the river-banks, and I did not do much good with them.

The Flamingoes we had seen in the morning; but these long-legged and long-necked fowl are exceedingly difficult to approach. Wading slowly, in a crouching attitude, and holding the muffled camera in front, so as to appear as little human as possible, I found it a matter of difficulty to get within two hundred yards of their ranks. Any attempt to



*NEST OF BLACK TERN (*Hydrochelidon nigra*).

decrease this distance invariably disturbed them, and after the second such disturbance they left the place altogether. It was a fine sight to see their serried lines break up in confusion, with much flapping of thousands of scarlet wings, and a great uproar of gaggling voices.

One of the ambitions of the trip had been to photograph a Flamingo on its nest, but this was doomed to disappointment. No sign of any nest did we see in the whole of the immense district explored by us. The place where they were met with was merely a feeding-place: and if they were nesting at all, it was certainly at a great distance—possibly on the islands where the Guadalquivir divides its channels, Isla Menor or Isla Mayor. They are, however, always very late nesters. Chapman, who was the first to describe the bird's real nesting habits from personal observation, gives the end of June, and says that in some years they do not breed in Spain at all.

Vultures also were not met with so frequently as I had expected. The Griffon breeds exclusively in the sierras, but none were seen while on the wing in search of food, in which search they range over an immense area at a high altitude, until a carcase is discovered, when the descent of one bird becomes the signal to all the other Vultures within sight. The Egyptian Vulture was often seen, but not at very close quarters.

On the wing this bird looks very grand, and its power of flight is superb. Once I stalked one on the ground, using the pack-mule as a "stalking-horse": but the shutter of

my camera had become rusted from its having been blown over into the water while photographing Herons, and I was unable to work it. While tinkering at it, the bird flew off slowly, and settled on a dead tree at a short distance. After a long and careful stalk through the brushwood, it took alarm long before anything like a close enough approach



NEST OF AVOCET (*Recurvirostra avocetta*) MADE OF FLAMINGOS' FEATHERS.

had been made; and, to my surprise, it was followed by seventeen others, which had been in the same tree, but invisible through the bushes. This was the most intimate acquaintance made with the Vultures during the whole of our visit--much to my disappointment; for these large birds, despite their repulsive habits, are, by their size and

their picturesque appearance, interesting subjects for the camera.

The hope of an opportunity of visiting some of the breeding-places of both Griffons and Egyptian Vultures was not realised, though both species breed in the sierras not far from Gibraltar.

The Harriers, too, were a failure, though the sight of an "Aguilucho" was a daily occurrence. Though always on the look-out for a nest, and systematically beating through in line several likely looking swamps, we never succeeded in finding one. If at any time we marked down a bird, it was only to find it had been regaling itself on Purple Herons' or Coots' eggs.

In fact, none of the larger Hawks or raptorial birds were found breeding, though we did get several clutches of Kestrels' eggs from old Kites' nests, or rather what we took to be Kestrels'. The birds, however, were not seen; and on comparison with eggs of Kestrels taken in England, these eggs are decidedly smaller, and very round—some exceedingly richly coloured, and others blotched with reddish over a pale ground-colour. They have been pronounced not to be Lesser Kestrels' by a competent authority. Possibly they are Hobbies': but, in the absence of identification of the birds, they are not of much value or interest.

A pair of Peregrines were subsequently seen apparently breeding in the cliffs near Coruña, though no nest could be found. A Kestrel was also disturbed from a hole in the cliff-face, which contained bones and pellets. These

cliffs would doubtless have rewarded a better and more prolonged search if we had had more time to spare. As it was, we only put in for two or three days on our run home after leaving Lisbon.

In Lisbon we saw nothing ornithologically interesting. A few Kites hovering over the Tagus, and an apparently wild Stork in the Zoological Gardens, which flew down and began to walk about the paths close to us in a most familiar manner, were the only things seen.

The end of this most enjoyable expedition came all too soon, but the memory of it will last for the rest of my life. The only drawback to my complete enjoyment of such a unique opportunity was that I was alone during the best part of it—the stay in the marisma itself; and that the health of my friend, whose guest I had been from England, and to whose generous kindness I was indebted for the whole of the expedition, would not permit him to leave his yacht. Little did I think that, after my return to England, I should only see him once again.

Spain is a most interesting country for the naturalist, and would well repay a much more prolonged trip. But not many discoveries can be expected. It is ill gleaning after such experienced workers as Chapman, Lord Lilford, Colonel Irby, Howard Saunders, and the late Prince Rudolf have been over the ground. And though so near and easily reached, the conditions of life, away from the hotels of the large towns, are entirely different from anything that might be expected, and travellers ignorant of the

country would probably find themselves very ill prepared for roughing it among the wilds.

The heat in May was terrific, appearing to scorch through my clothes, and even through my boots. We never stirred out without a large earthenware jar, or chattie, in the pack-saddles, full of water. In spite of this, I have often been



GREY SHRIKE (*Lanius meridionalis*).

glad of a drink from the store of a charcoal-burner or herdsman.

No wonder the natives look so dried up and copper-coloured. The little blood left in their veins by the mosquitoes must be entirely parched up by the intense and fiery heat of the long summer months—a heat which completely dries up the water from the whole of an immense area. With the exception of the deeper lagoons, what was

up to March a vast inland sea becomes in time an arid desert. Leagues of tawny mud stretch to the horizon, unbroken by tree or shrub, and baked by the heat into the hardness of brick.

The natives suffer very much from fever, but the population is exceedingly scanty. These consist of a few "guardas" to protect the red-deer, wild boars, and other game of the "cotos"; some herdsmen in charge of the herds of semi-wild horses and cattle; and a shifting gypsy-like population of charcoal-burners and timber-fellers, who live in huts made of pine-boughs, grass, and mud. These huts they will erect in a day. I have passed in the evening an inhabited hut of this description where there was none in the morning.

The Spanish peasant, whether herdsman, charcoal-burner, or what not, is a very good fellow and a keen sportsman, with the manners of a gentleman: and I thoroughly enjoyed my stay among them.

Life in the marismas is enjoyable enough during the day, but the ardent ornithologist has to pay for his pleasure at night. Then the hosts of mosquitoes come forth in their thousands and take their revenge. I have met mosquitoes in various parts of the world, and thought they were bad enough in the West Indies and in Newfoundland, but never have I seen them in such numbers or of such bloodthirsty ferocity. Towards the end of the time they were daily, or rather nightly, getting worse, until the only way to get any sleep at all was to muffle my head in a puggaree sufficiently porous to breathe through, and to draw my

stockings over my arms. That puzzled them, but the heat was simply awful. The first necessary of life in this region is mosquito-curtains, the second being perhaps a horse.

Is not this the country where a "man" and a "horseman" are synonymous—a land of "caballeros"?



DISTANT VIEW OF FLAMINGOES IN THE MARISMA.



WHITE STORK (*Ciconia alba*).

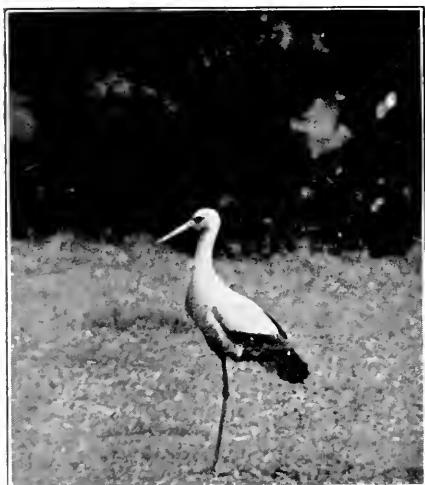
CHAPTER X

Bird Life in Denmark—On the Fjord

FOR many years, to visit Denmark, and to see for myself some of the episodes of marsh bird life, as described by Seeboldi, has been a great but impossible ambition. This year, however (1903), the wish has been at last fulfilled; and though I did not actually see the Tarm marshes described by him, yet I rather fancy I must have gone over some of the ground visited by him in the immediate neighbourhood. Since his time, however, things have altered somewhat, and fresh restrictions have been made, by which a Government permit is necessary before one is allowed even to set foot on the best part of the ground.

The fact is that these restrictions have arisen in consequence of the unreasonable looting of eggs by English visitors, and, the place belonging to the Danish Government, it has been constituted a national preserve, owing to the representations by Danish ornithologists, who became alarmed at such systematic robbery. From what I can see, however, these restrictions either do not apply to natives or

are more difficult to enforce in their case, for both shooting and taking of eggs are done with more or less impunity on their part. And it must be remembered that in many cases the doings of visitors, especially foreign visitors, are often exaggerated by the natives to serve their own purposes.



WHITE STORK (*Ciconia alba*).

After due consultation of authorities and maps, and obtaining the necessary permission, my friend J—— and myself left London on May 4th, arriving at Esbjerg early on May 6th.

All this west coast of Jutland is extremely barren, and the scenery monotonous in the extreme. Travelling ornithologists, however, can always find beauties in the most arid and desolate countries, as long as they are not quite devoid of bird life, and even travelling by train is not

quite lost time. By keeping a good look-out, it is wonderful what a lot one may see from the train-window. One does not have to go far in Denmark to discover what immense numbers of Skylarks there are in every direction. The songs of innumerable Larks are incessant the whole day.

The next discovery is the great abundance of the White Stork. It is far and away more numerous here than in Holland,

where it is not by any means so universally to be found as is popularly supposed. Here, however—or, at all events, throughout



BUNTING (*Emberiza miliaria*).

Jutland—nearly every farmhouse (and, outside the towns, almost every house is a farmhouse) has a place reserved on the gable-end of its thatched roof for a Stork's nest. Besides these, there are in the towns also very many nests on the house-roofs; and to see the stately form of a White Stork frog-hunting in the meadows close to the street is so common that it ceases to be noticeable.

To give some idea of their numbers, it may be

mentioned that on the barns and outbuildings belonging to the house of a Danish nobleman there were, at the time of our visit, no fewer than twenty occupied nests of the White Stork. Most interesting it was to see so many of these great, handsome birds standing on their nests, and flying overhead with great beaksful of dry grass to line them with, or carrying a *bonne-bouche* in the shape of a fine fat frog for their wives, busily engaged in family duties.

Another bird almost as much favoured by the Danes is the Starling. Nearly every house, and even many of the railway-stations, put out bird-boxes for their accommodation. Some had a small house, with painted windows and doors and red chimneys, mounted on a pole outside; while the larger houses sometimes provided free lodgings for sixty or a hundred pairs of Starlings, with a separate entrance-hole and a perch outside for each pair. It was very funny to see rows and rows of Starlings all jabbering away at once, like so many old women.

Driving along the sandy roads of Jutland, a very conspicuous bird is the Common Bunting. Uttering its simple and monotonous song while perched on the telephone- and telegraph-wires at the roadside, a Bunting is passed so frequently that one begins to think it the commonest bird in Denmark.

Another roadside bird is the Crested Lark; but it seems actually to prefer the village street to the country road, and here it runs about under one's feet close to the houses in the familiar way one expects from a Sparrow

rather than a Lark. The crest is most conspicuous, being carried as a rule very upright; and the bird is a striking and interesting one on first acquaintance.

On one by-day, when it was almost too windy to set up a camera, I walked about three or four miles on purpose to see something of the Crested Lark, and cer-



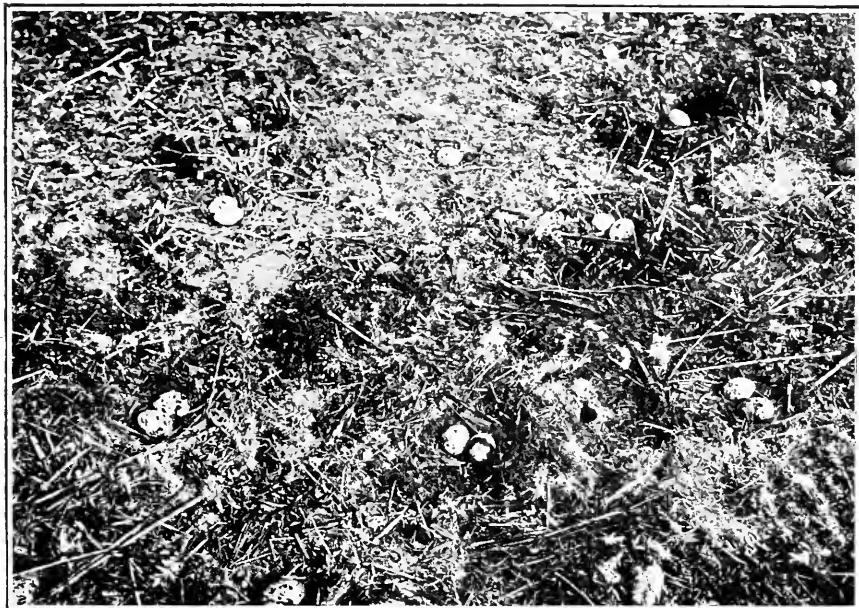
STOWING THE CAMERAS IN THE BOAT.

tainly did see a few birds, but quite failed in discovering any nest. On reaching the small village inn, however, where we were staying, there were two Crested Larks running about the road just in front of the door; and I really believe, if I had stayed in, I might have been able to photograph them out of my window.

On first arrival in Jutland, to our great disappointment we saw at once that we were nearly a fortnight too early. An exceptionally late and cold spring had so delayed matters that some of the birds had only just arrived, and had barely commenced to nest, the first day's work only resulting in finding a few Redshanks' and Peewits' eggs.

The fjord, which runs inland for nearly thirty miles through a narrow entrance, is very shallow and studded with numerous islets only a few inches above high water, and surrounded by sand-dunes and salt marshes. It is an ideal spot for Terns, Gulls, Plovers, and marsh-birds generally, and is in springtime resorted to by many thousands of birds, which find here a congenial spot in which to nest and bring up their young broods. Running down under sail in a small boat belonging to one of the fishermen—who spoke, by the way, excellent English—we found, on May 7th, that, if eggs were scarce, the birds themselves were present in immense numbers. Field-glasses in hand, we were hard at work identifying the various species. Our destination was some distant islands up the fjord, to reach which necessitated, after sailing six or eight miles, walking over a marshy promontory, carrying the cameras (four miles each way), and then wading to the islands in question, where we hoped to find the birds a little more advanced than on the mainland. On our way we saw numbers of Kentish and Ringed Plovers on the shingly shores and sandy islets. Wading in the shallow water were numerous Avocets, Redshanks, and Dunlins;

and overhead were countless Arctic, Lesser, and Sandwich Terns, and Black-headed, Common, Lesser Black-backed, and Herring Gulls. In the distance, magnified and distorted by the mirage, which plays such curious pranks with the sight in these shallow, sandy seas, were immense flocks of Brent Geese, and smaller ones of Scoters. Terns sat on all the



NESTS OF SANDWICH TERN (*Sterna cantica*).

stakes of the salmon-nets which bar the passage in every direction the whole length of the fjord, and Pintails and other Ducks flew past in the distance.

After landing, our progress across the marsh was accompanied by a perfectly incessant babel of harsh and angry protests from thousands of indignant birds. Circling

Redshanks, with their "Tip-tip," the Avocets' "Whit-whit-whitter-whitter-whitter," and the "Kree-ee" of thousands of *Terus* gyrating unceasingly overhead, would make anybody think that the whole marsh was full of their eggs. But not a bit of it: there was hardly an egg to be seen. A few Redshanks' nests held one and two eggs, and the others were almost without exception empty.



NEST OF PINTAIL (*Dafila acuta*).

Many Dunlins in pairs ran about in their usual tame and familiar manner only a few yards away, but had not even then begun to nest. Some days later we found numbers of nests like

Redshanks', each in a small tuft of grass, only very much smaller; but they had not begun to lay when we left. Blue-headed Wagtails were also numerous, and they also had apparently not begun to nest.

The walking was bad—soft and slippery mud, bright yellow in colour from the iron, I believe, when undisturbed, but black as ink when trodden on. The whole

marsh was intersected with creeks, some shallow, others much deeper, all of which had to be waded; so that by degrees we got wetter and wetter. We had started carrying a pair of wading-trousers; but between two of us it would have taken a week to have crossed that



NEST OF AVOCET (*Recurvirostra avocetta*).

marsh dry, so we put them down half-way to be picked up on our return, and from being wet up to our knees we were soon wading up to our waists, off to the island we had come to investigate.

The first island, a narrow strip about a hundred yards long, as my friend tersely expressed it, "fairly stank of

birds"—that peculiar smell so familiar to both of us, which is so noticeable wherever large numbers of sea-birds are nesting in a confined space. At each end was a strong colony of Sandwich Terns. Their extremely handsome eggs were thickly scattered over the ground, so close together that I was able, a few days later, to photograph fifteen nests on one whole plate, in doing which I broke several eggs by treading on them. The eggs were curiously different (in no case were there more than two eggs in a nest): but in very many instances one egg would be heavily blotched or zoned round with dark markings, while the other was uniformly spotted all over. There were three very handsomely marked eggs, but in each case they were odd, not matching the other egg.

On approaching the island, the Terns rose *en masse* in the air, and hung like a dense cloud over their nests, returning to them as soon as we moved on a little. There were two or three Avocets' nests, with four eggs each; and a colony of Black-headed Gulls, each with three eggs.

This island seemed to verify our expectation that the islands would be earlier than the mainland, and we determined to go off to the second island, rather a larger one. It was a good long way round, however, and we had to negotiate some deep creeks on our way. Half-way we saw a big lot of Ruff's on a hill, evidently just arrived: but, unfortunately, two men with guns were working up to them, and afterwards we heard them fire several times.

By this time we had waded off to the other island,

where soon after landing we found a small colony of Avocets' nests, with three and two eggs in each, a few with four, and a Redshank's nest or two. After which, a low range of sandhills, covered with dry curly grass, raised our expectations; for J— said at once it exactly



BLACK-TAILED GODWIT (*Limosa belgica*) AND NEST.

answered Chapman's description of where he found the Pintail breeding. We gave it, therefore, a close and thorough search, and had not proceeded far when I saw at my feet a Duck's nest, the eggs in which, ten in number, were entirely hidden and covered over with down.

This was a puzzle. We expected Pintails' nests, and

the eggs and down appeared to be Pintails'; but without seeing the birds we felt we had no proof. Luckily a few steps farther I put a duck off her nest of twelve eggs, which appeared to be a Pintail, though I could not be quite certain she was not a Shoveller; and close at hand was yet another nest, apparently deserted, with a broken egg, three nests, all close together, with the same type of egg and the same down. But, to make quite certain, J—, who had waded a deep creek on ahead, put off another duck from a nest, an unmistakable Pintail, which was joined by a Pintail drake, which had been seen about; and the two went off together. As all the eggs were alike, we now felt quite satisfied that they were really Pintails, and were rather pleased with our luck.

The worst of it was that I now wanted badly the whole-plate camera, which our boatman had carried, while I had the tele-photo lens and another camera. The said boatman had left us in the lurch, and was calmly lying down a mile away, on the other side of a deep creek, which had baulked him. Instead of a whole-plate photograph, which was wanted to do justice to a nest like a Pintail's, I had to make the best of a quarter-plate, by substituting a short-focus lens I had with me for the tele-photo lens in the bird-camera. I was rather sore over this, and took care to let our man know how he had hindered us; but he was afterwards so willing, and always so ready to help and obliging, that I easily forgave him.

Our return home, against a bitterly strong head-wind,

was an unpleasant experience in our saturated condition. We did not reach our inn until late that evening, in a wretched state—wet, cold, and more or less miserable; and we must have presented a funny appearance on our way from the boat to our headquarters. Two mad Englishmen enjoying themselves in their own peculiar way was probably the opinion of the natives.



RUFF (*Machetes pugnax*).

This wetting and exposure brought on, a few days later, a bad attack of rheumatism, for the first time in my life; and I was compelled to wear wading-trousers for the remainder of my visit. And walking even such a distance as seven or eight miles, which was the minimum, in wet wading-trousers and heavy brogues, carrying a big load of cameras, is very hard and slow work, especially as it had to be done on one leg, the other being practically useless.

These two days convinced us that our best plan was to go off to a distant forest, to the proprietor of which we had introductions, and return in two or three days, by which time we hoped that some of the other birds would have begun to lay.

After an interval of four days, we revisited both these islands, finding many more eggs in them, and a few on the mainland. The patch of grass on the second island was then full of nests, but even then many were still empty.

On May 11th a Reeve was flushed from her nest of four eggs, and a Black-tailed Godwit's nest was found with three pointed eggs of a greenish brown: the first I had seen—as in Holland, where these birds are very common in the meadows, I had always been too late for eggs.

On the 13th another Reeve's was found, also with four eggs, in the same patch: and the same day a second nest of the Black-tailed Godwit, with four eggs, was seen on the mainland on short grass, on which the nest and eggs were as open as a Lapwing's nest.

The marsh now held a fair number of nests, Avocets and Redshanks chiefly, with full clutches of eggs. Here also we got two nests of the Common Gull, with two eggs each. These were on the ground at the edge of a broad creek, studded with numbers of circular islands of turf, on which the Gulls were sitting about: but though I waded out to nearly all of them, no more nests were to be found.

R. B. G.

Herring Gull.
(*Larus argentatus*.)



Some of the little sandy islands in the fjord by now began to have a few eggs—Ringed Plovers' and Arctic Terns' and a few Black-headed Gulls'.

On a long day's work the question of food is a difficulty. With so many photographic things to carry, the



NEST OF COMMON GULL (*Larus canus*).

supplies were cut down to the minimum, and no drinkables were taken at all. At the same time, the work is exhausting, and one's appetite is apt to become insatiable. I was often glad to devour raw the eggs of Gulls, Redshanks, and Terns, and found them very refreshing indeed.

Towards the end of our stay the numbers of birds

seemed daily on the increase, and we could see that a little later all this neighbourhood would be indeed a "paradise for ornithologists."

Many thousands of Brent Geese still lingered, postponing their departure for their Arctic breeding-grounds. The whole expanse of marsh traversed by us was covered with the evidence of their recent abundance. It resembled, in fact, a huge farmyard, and it was difficult to find a clean spot large enough to sit down on. The fishermen in the autumn and winter shoot great numbers of them from hiding-places, in which they lay prone on the watch. I heard of one man having killed twenty-one wild Swans from one of these in one day last autumn.

The place is evidently a favoured resort of birds the whole year round. As soon as the summer visitors depart with their families, their place is taken by winter birds which have spent the summer in distant northern latitudes.

CHAPTER XI

Bird Life in Denmark—In the Forest

Nor the least pleasant of our experiences in Denmark was the visit to a certain forest under the guidance of the owner. Armed with introductions, we had called on him one morning early in May, 1903, after telegraphing our intended arrival the night before, in the hope that he would let us have the freedom of the forest in charge of a keeper or forester for a couple of days. We had not reckoned, however, on Danish hospitality. Though our telegram had not been received, we were welcomed with the utmost geniality and kindness, and pressed to stay for at least a week. In the meantime our luggage was sent for from the station: and after a good dinner, to which we were able to do ample justice after our long journey, our host drove us over himself to the forest.

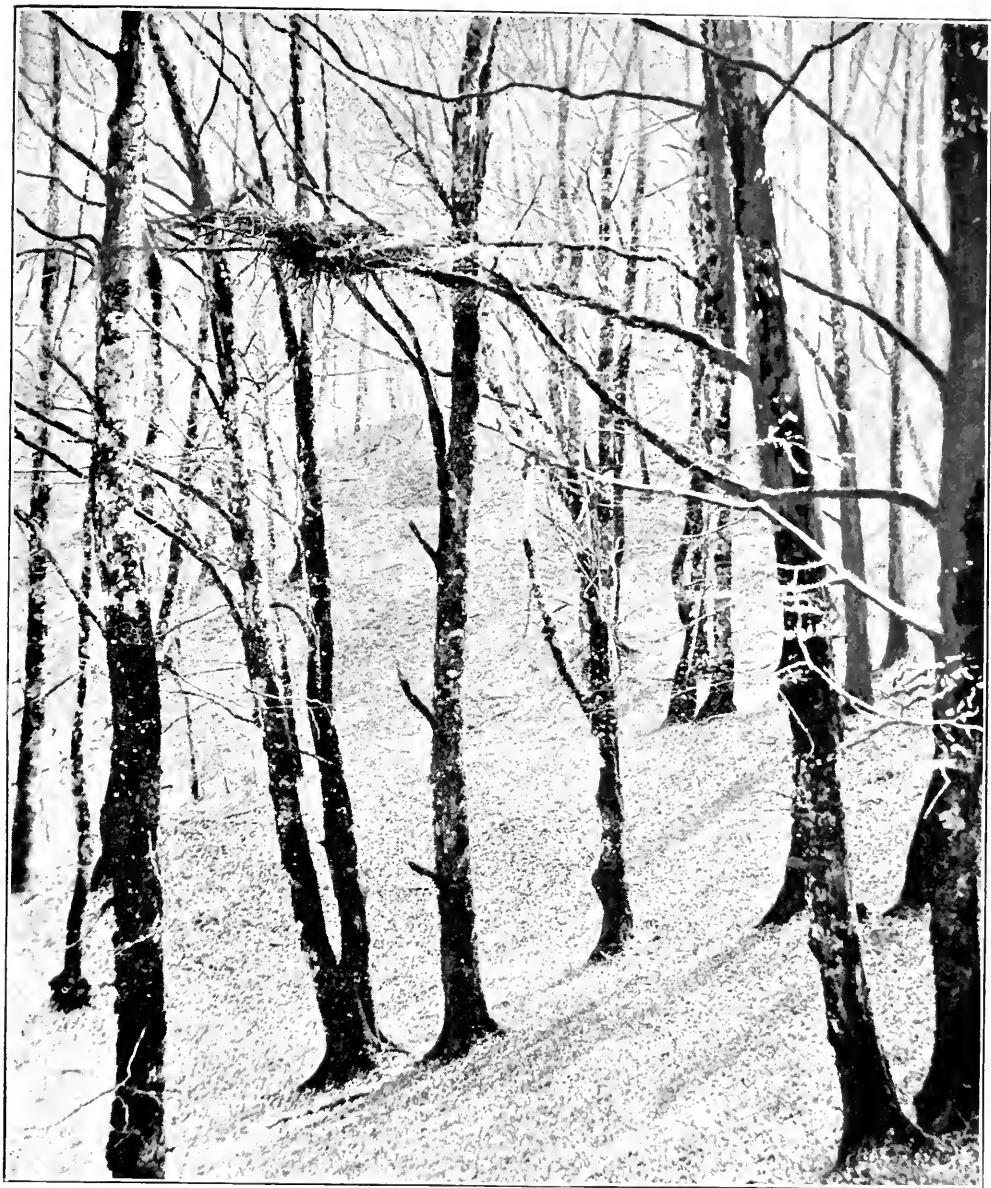
On the way thither we saw a Lapwing drive off a passing Raven from the vicinity of her nest, in spite of the angry, barking protests of the sable marauder: and we had barely entered the outskirts of the forest when we saw a Buzzard leave a spruce-fir on the summit of a small hill.

Then, leaving the carriage, we were taken a short distance

to the last year's nest of a Kite, near to which was a fresh nest in a beech-tree. This nest, however, had palpably been climbed to, and we did not trouble to ascend. Leaning against the beech was a felled spruce-fir, on which boot-marks could plainly be seen all the way up. Subsequent events showed that this suspicion was only too true, and we were able eventually to open the eyes of the owner to what had been going on in his forest, probably for years, without his knowledge or permission. His foresters had been tempted to take the eggs of the rarer birds, breeding in the forest under their charge, and sell them to a dealer in Copenhagen.

I had hoped to have been able to obtain some Kites' eggs to help restock the hills of Wales, where the last pair of Kites in England are now lingering. The idea was to put a clutch of fresh Kite's eggs in a Buzzard's nest, as this bird is still fairly plentiful in Wales, and their eggs and habits are very similar. I was quite unprepared to find that the Kites in this remote Danish forest were in much the same plight as the Welsh Kites, and from the same cause. The greed of egg-collectors and dealers has much to answer for in exterminating rare birds. For when once a bird begins to get scarce and its eggs to be in demand, the systematic robbery of them year after year for the dealers soon ends in extermination, as it gives them no chance of recovering.

Far more important than the Kite's nest in an ornithological sense was the nest of a Black Stork. This was



NEST OF BLACK STORK (*Ciconia nigra*).

also empty, probably robbed, as was a Buzzard's nest close to it.

There was a second nest of the Black Stork not very far from the first, belonging to the same pair of birds. This also was empty: and our theory was that, the first clutch of eggs having been taken, the birds had nested again, but had not yet had time to lay again. This second nest was



NEST OF BLACK STORK (*Ciconia nigra*).

half-way up a very large beech, in a fork on the main trunk. The first nest was at the extremity of some horizontal boughs of a small beech-tree, and was not more than twenty feet from the ground, overhanging the hollow of a hillside. The ground was covered with a russet layer of last year's leaves, and the trees were just beginning to open out into leaf, and were clothed sparingly in the brightest of green.

The nest was a rough flat platform of sticks, lined, as was also the other nest, with a layer of soft green moss. On visiting the spot the second day, we were fortunate enough to see one of the Black Storks soaring on broad wings over the valley, where it made a most impressive picture.

This was the first Black Stork ever seen by either of us in a wild state, this bird being of extremely shy and solitary habits, and entirely restricted to the most remote and secluded forests in Europe, and is nowhere an abundant and familiar bird like the White Stork, which simply swarms in Denmark, nesting abundantly both in the towns and on the farmhouses.



GIVING A BACK UP A TREE.

Some of the beech-trees in this forest, especially those in the sheltered valleys, were of enormous size, and extremely difficult to climb, owing to the growth of moss and lichen which encrusted their trunks. This comes off directly it is grasped, and we found any swarming simply impossible. One immense tree defied our utmost efforts, though there was a Buzzard's nest nearly at the top. We spent an hour in unavailing efforts to throw a rope over the lower branches, and were finally compelled to give it up. Unfortunately we had omitted to bring any climbing-irons. The whole time we were there the two Buzzards were sailing round in circles, and the hillsides resounded with their plaintive, mewing cries. After some time a Goshawk, which proved to be nesting in the vicinity, dashed out in pursuit, and with sharp and angry cry and menacing attitude fairly drove away for a while the Buzzards from the neighbourhood of their own nest.

This Goshawk's nest we afterwards visited, and found it empty. It had also been robbed; for we saw the egg—destined for Copenhagen with the rest. The culprit in this business was the son of the head forester, who, born and bred in the forest, could climb like any cat.

No wonder the larger birds are getting scarce,—the Black Storks reduced to one or, at the most, two pairs for the whole of Denmark, the Sea-eagle to one pair, and the Kites, Ospreys, and Goshawks gradually diminishing in numbers; for Denmark has few extensive forest districts, except on some of the numerous islands.



NEST OF BUZZARD (*Buteo vulgaris*)

A Raven's nest, which probably contained young, we did not trouble to go up to: and one of several Hooded Crows' contained five sat-on eggs—other nests being empty and holding young birds: ugly, uncanny-looking little wretches they were too. The Hoodie is here extremely abundant and very familiar. Though so shy and wary when in England during the winter months, here, in Denmark, the Hoodies nest along the roadsides, sometimes in ridiculously small trees: and round the farmhouses, in the little belt of trees which serve as a shelter from the cold winds, there is generally a nest of either the Magpie or Hooded Crow. In every direction the bird's burly figure is a conspicuous object in the landscape—that is, in the wooded parts. Some parts of Denmark, particularly in West Jutland, are almost devoid of trees: and there the Hooded Crow is not to be seen.

Two days, or really two half-days, were not enough for this most interesting forest. We saw a good deal in the time, considering how short it was: but a week would not have been too much to do justice to it. However, our short stay in Denmark—ten days—would not allow us to stop any longer, and we were compelled reluctantly to tear ourselves away all too soon, leaving many things unvisited. Eagle-owls, for instance, nest here—probably some of the smaller Owls also: but we saw nothing of them. In the forester's house we saw a stuffed Nutcracker and Gyrfalcon, but ascertained that these had been shot in the winter. There were also many heads of roe- and red-deer, with a

picturesque group of guns, rifles, and *conteaux-de-chasses*. The horns, however, seemed small. Foxes, badgers, and hares are also fairly common.

In another fifty years or less Denmark will be covered with forests of spruce-fir. All the sandy and barren waste-land is being extensively planted in every direction by the Government. This far-seeing policy should make a great difference to the country: for much of it is at present perfectly unproductive, and incapable of grow-



NEST OF GOSHAWK (*Astur palumbarius*).

ing anything better than coarse grass and low shrubs—such as sallows or willows a few inches high.

On some of the hillsides, exposed to the prevailing westerly winds, trees were seen with every appearance of great age, but most curiously stunted and deformed from the constant struggle with the elements. Some were blown perfectly flat against the hillside, so that nowhere were they more than a foot above the ground, and not more than ten or fifteen feet in length. It is impossible to imagine a more eloquent testimony to the bleak nature of the country during the greater part of the year.

CHAPTER XII

A Week in Derbyshire

An invitation from an enthusiastic ornithologist to spend a few days under his guidance among the birds of Derbyshire was too good a chance to miss, and accordingly one day early in June, 1903, I stepped out of the train, and found my friend waiting for me, with the intelligence that he thought he could take me to a Tufted Duck's nest that afternoon.

After a hasty meal, off we started to some large ponds about three miles away: and sure enough, on nearing our destination, a pair or two of these ducks were seen about the neighbourhood of a small island. Having on our way procured the key of the boathouse from the keeper, we soon found ourselves afloat in a small and remarkably crank boat, in shape not unlike a tub. Shoving our craft in between the overhanging alder-branches, we stepped out very gingerly, for caution was much needed to avoid capsizing. We commenced our search among the dry grass which covered the small island, each of us taking one side till we met again, having found nothing but a fine specimen of a Coot's nest, a bulky mass of sticks at the base of an alder-tree a couple of feet out in the water. As we felt

convinced the Duck's nest was there, notwithstanding our failure to discover it, we went round again; and this time with better success, for J—— at last found it right under the stem of the boat. If we had driven her ashore a little farther, we must have smashed every egg. The nest was



NEST OF COOT (*Fulica atra*).

quite concealed under a tuft of dry grass, and contained eight eggs, with very little down. For the size of the Tufted Duck, her eggs are distinctly large—appreciably larger than the eggs of the Pintail we had found but a few weeks before together in Jutland, though the Pintail must be a far heavier bird.

On another pond on the same estate we saw quite four pairs of Tufted Ducks, which were doubtless nesting on some small islands round which they were swimming: but there being no boat, we did not investigate farther.

A pair of Sandpipers were seen on a grassy bank at the end of the lake, but our search for the nest was fruitless. So late in the season, there was a probability of their having been hatched. However, next day I was able to photograph a nest of these interesting little birds. Snugly hidden under a drooping leaf, the nest was by no means easy to find: but with the richly spotted pear-shaped eggs it made a pretty picture beneath the tall burdocks, which must appear a veritable forest to the slender forms of the Sandpipers. Such plants afford excellent covert, of which these birds are very fond of availing themselves, more especially as they grow luxuriantly along the edges of these Derbyshire rivers, and on the small islands which are the favourite resort of the Sandpipers. They are charming little birds, whose acquaintance I had long much desired to make, and their wild, shrill note is a fit accompaniment to the lovely scenes amid which they are so exclusively found.

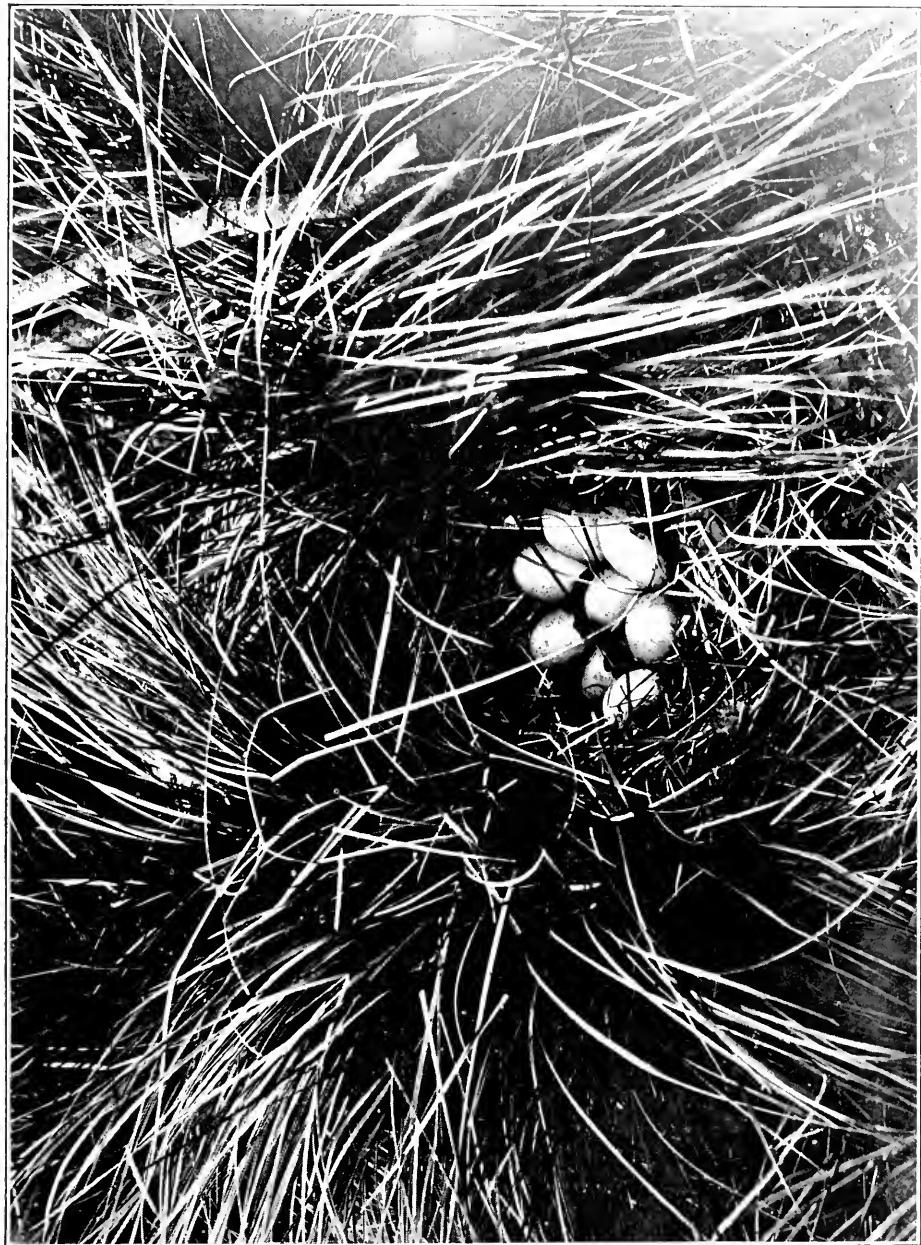
One day was spent in a large wood on an estate which had been neglected in the way of game preservation, and was in consequence better stocked than usual with Hawks and Owls and other birds not usually allowed to exist by keepers. A Kestrel's nest was one inducement for the long tramp, but unfortunately it was found impossible to photograph it. The situation was remarkable. On the summit

of a steep hill, covered with bracken and oak-trees, up whose slippery slopes we toiled in a breathless condition, were two bold and isolated pinnacles of rock, and in a crevice half-way up the perpendicular face of one of these peaks the Kestrels had five eggs. But J——, who had descended it by a rope, reported the eggs perfectly out of sight, quite at arm's-length down a very narrow fissure—evidently not within the range of possibility for a photograph, and an attempt at a view of the rock was not entirely a success.

The wooded sides of the hills were full of Wood-wrens; and as the nest of this bird was wanted badly, we tried to watch the female bird to it. But in vain; for while the hen was plaintively whining in the tree-top overhead, among



TUFTED DUCK (*Fuligula cristata*).



Nest of Tufted Duck (*Aythya fuligula*).

whose luxuriant foliage it was by no means easy to see the slender form, thousands of bloodthirsty midges made our lives a burden to us below, and finally we gave up the attempt.

Passing a large pond surrounded by a perfect jungle of undergrowth and large trees, we were attracted by the wild note of the Dipper; and on field-glasses being directed to the spot, we could see the white breast of a Dipper on a stump at the farther end. Examination of a damp moss-grown wall by a small waterfall soon revealed the nest, amid a tangle of pendent vegetation. From the dampness of the situation, the moss, of which the nest was composed, was quite green and fresh-looking—in fact, it had sprouted, and grass was growing on the top of it. It held young birds nearly fledged. The nest, though so large, is very easily passed over unnoticed by an inexperienced eye. It is particularly solid and thickly felted together, the heavy penthouse-looking roof overhanging the cup-like receptacle, which holds the eggs. The following day, in lovely Dovedale, we were fortunate in finding a late clutch of eggs, pure white and very pointed, but only four in number, though they were hard sat on—in all probability a second laying. This nest was on the rock-face, about eight feet from the surface of the water, which swirled below over a small weir of moss-grown stones. In close proximity were two old and disused nests, all amid tufts of dandelions and tassels of hanging grass, among which the nests were very inconspicuous from the farther bank.



NEST OF COMMON SANDPIPER (*Totanus hypoleucus*).

The bird here was very uneasy about our presence; and after flitting up and down, actually went into the nest while we were watching it, remaining in all the time I



NEST OF DIPPER (*Cinclus aquaticus*).

was wading the river, and only left it at last while I was getting the camera into position below her. The white breast of the bird is a very conspicuous object among

the stones and boulders, and is visible from a considerable



NEST OF DIPPER (*Cinclus aquaticus*) IN A TREE-STUMP.

distance. The flight is very Kingfisher-like, swift and arrowy, with quick beats of the short rounded wings.

Its chosen haunts are certainly the loveliest and most

picturesque spots to be found in Britain, being restricted as they entirely are to the wild rocky glens and dales of Devonshire, Derbyshire, Wales, Yorkshire, and the North. In such places the Dipper is a resident, living amid the swirl and dash of the running stream and the spray of the waterfall, in company with the Sandpiper and the Kingfisher.

Bridges possess a great attraction for the Dipper, and I was shown one nest among the iron girders which supported a small roadside bridge, close to the village. Overhanging banks and amid the roots of trees are also probable sites for their nests.

While I was engaged in photographing one nest on an old tree-stump overhanging a small islet, just below the junction of the Dove and the Manifold, my friend was seated on the bank watching with his Goerz prismatic glass a Sandpiper, which was calling on the farther bank between sixty and a hundred yards away. It says a good deal for the power of this glass that he was able, at such a distance, to watch such a slender form as a crouching Sandpiper creep through the long grass and finally settle on her nest. Walking round to the nearest bridge a quarter of a mile downstream, we came back up the opposite bank and went right to the nest, from which the bird flew. It contained three young birds and an egg on the point of hatching.

Another bird which haunts these rocky streams is the Grey Wagtail, the most elegant, perhaps, of a particularly elegant family. It may be distinguished from the other



Nest of CLIFF-CHAFF (*Phylloscopus trochilus*).

Wagtails by the greater length of its tail. Under the glass the Grey Wagtail is of quite exceptional beauty: but it breeds early, and I did not meet with any nests.

Among the rocky towers and pinnacles which overhang Dovedale, and add so much to its beauty, Kestrels breed in comparative safety. Climbing on hands and knees up a narrow gorge in search of their nest, we heard some young Kestrels chatter loudly, as one of the parents sailed round into view; and though they were evidently, from the sound, quite close to us, shut in as we were between two rock-walls, it was impossible to locate exactly the position of the nest. We worked our way up to the top, coming down on the other side of the most probable rock, but failed to discover it. In all probability we should have been unable, without a rope, to ascend the extra twenty or thirty feet which separated us from the nest. Jackdaws also clustered round the rocks, some of which resemble spires, while others take the semblance of ruined towers: and over the valleys may nearly always be seen the sable form of a Carrion-crow.

In the eaves at the entrance to Dovedale from Mill-dale, known as the Doveholes, a pair of Dippers have for many years nested in security from any human foes: for their chosen retreat is in a chimney-like aperture in the roof of the largest eave, quite out of all reach.

My friend's garden, as befits an ardent ornithologist, was well fitted up with bird-boxes, mostly inhabited by Starlings, Great Tits, and the usual inhabitants of such

retreats. The Starlings and Blackbirds regard this garden as their own private estate; and while they tolerate with more or less equanimity the presence of the occupier and his family, they resented my appearance with a camera in quite outrageous language.

While a Chiff-chaff's nest near the ground in one corner was being photographed, the hen bird went in freely to feed her young within a yard or two of the camera. All the time her husband "chipped" vigorously overhead, but appeared to leave all the work to his wife. Two pairs of Flycatchers built on the house, and another nest was placed on the hinge of an outhouse door. Both were in such awkward positions for the camera that my attempts were spoilt by insufficient exposure.

INDEX

Africa, 175, 184, 266
 .. South, 11

Algeciras, 276

Almoraima, 276

America, 182

Andalucia, 266, 272

Arctic Circle, 184

Artistic beauty of birds, 34

Ashford stand, 37

Asia, 182

Auk, Little, 182

Automatic photography by electricity, 12, 24-35, 244, 246, 248

Avocet in Denmark, 336, 338
 .. in Norfolk, 207
 .. nesting in Denmark, 340, 341
 in Holland, 260
 in marisma, 320, 322
 .. on Guadalquivir, 284, 293

Baits, 31, 32

Barbary of pole-trap, 148

Bee-eater, 272, 278, 315, 316

Bittern, 207, 224, 256, 311
 .. Little, 311

Blackbird, 49, 62-64, 122, 276

Blackcap, 85

Bonanza, 294

Bramblefinch, 116

Bray, 176

Breydon Broad, 207

Broxbourne, 89, 100

Buckland, Frank, 9

Bullfinch, 53, 116, 159

Bunting, Corn- or Common, 116, 334
 .. Lapland, 181
 .. Reed-, 118, 119, 222
 .. Siberian Meadow-, 104
 .. Yellow, 118

Bustard, Great, 12, 207, 268
 .. Little, 207

Butcher-bird, 33

Cadett plates, 38

Camera, electric, 37
 .. reflecting, 37

Cambridgeshire, 223

Castings, Kestrels', 150
 .. Owls', 147, 149

Canvey Island, 222

Caton-Haigh, Mr., 182

Chaffinch, 110, 111, 276

Chapman, Mr. Abel, 108, 324, 327, 341

Chickens as bait for Kestrels, 150

Chiff-chaff, 45, 88, 89, 369

Chili, 184

Climbing, 42, 204, 286, 352, 368

Climbing-irons, 42, 352

Coot at Gibraltar, 275
 .. in Derbyshire, 357
 .. in Enfield, 163
 .. in Holland, 231, 232, 252, 256
 .. in Lincolnshire, 224
 .. in Norfolk, 222
 .. in Spain, 307

Concealing camera, 29

Condemnation of killing, 9

Cordeaux, Mr., 86, 106, 148, 182

Cormorant, 197, 203, 204
 Cornerake, 163
 Copenhagen, 348
 Crane, 12, 268
 Creeper, Tree-, 108
 Crow, Carrion-, 65, 123, 150, 156, 172, 368
 .. Hooded or Grey, in Enfield, 124
 nesting in Jut-
 land, 354
 on the Wash, 178,
 179
 photographing, 31
 Cuckoo, 32, 65, 91, 142-145
 .. American, 144
 .. Great Spotted, 142, 303
 .. in Spain, 278
 .. migrating, 107
 .. nests favoured by, 144
 .. young, 144, 145
 .. powerful note of, 132
 Curlew, 171, 175, 179, 293
 .. Eskimo, 183
 Dabchick, 173
 Dallmeyer, Mr., 17, 36
 Damaraland, 184
 Danube, 15, 307
 Denmark, 225, 331
 .. bird life in fjord, 331-346
 in forest, 347-356
 Derbyshire, a week in, 357-369
 Destruction of Larks' nests by Crows and
 Jackdaws, 128
 Devonshire, 80
 Dipper, 362-366, 368
 Disguise, 20, 29
 Dixon, Mr., 103
 Duck, Eider-, 201, 202
 .. Tufted, in Norfolk, 220
 nesting in Derbyshire, 357,
 358
 .. Wild, 53, 124, 156, 252
 Ducks, 51
 Dunlin in Denmark, 336, 338
 Dunlin in Enfield, 171
 .. in Lincolnshire, 175, 176, 179
 .. in Spain, 282, 284
 Dutch marshes, bird life in, 224-264
 Eagle, Bonelli's, 267, 290, 292
 .. Booted, 267, 290
 .. Golden, 267, 292
 .. Imperial, 267, 290
 .. Sea-, 352
 .. Short-toed or Snake-, 267, 279
 Eagles, 15, 204, 296
 Ear of Owl, 218
 Egg-shells as bait for Jackdaws, 31
 Egret, Little, 298, 307, 310, 313, 314
 Eider, 201
 Electric photography, 24-35
 Enfield, 49, 127
 .. sewage-farm, 51, 170
 Epping Forest, 50, 89
 Esbjerg, 332
 Europe, South, 175
 Failures, 20, 23, 25, 71, 155, 166, 236,
 238, 241, 246, 250, 306
 Falcon, Peregrine, 178, 267, 326
 Farne Islands, sea-birds of, 186-205
 Fieldfare, 52, 61, 62, 64
 Firecrest, 181
 Flamborough, 104
 Flamingo, 12, 121, 285, 292, 322
 Flycatcher, Spotted, 33, 70, 100, 369
 photographing nest
 of, 70
 France, 122, 232, 269, 270
 Friskney, 174-176
 Gadwall, 222
 Gannet, 187
 Garganey, 208
 Gatke, Herr, 104, 107
 Geese, Brent, 337, 346
 .. Wild, 172
 Gibraltar, 266, 268, 269, 294

Glass, field-, 38, 40, 366
 Godwit, Bar-tailed, 281
 .. Black-tailed, in Holland, 261
 in Norfolk, 207
 nesting in Denmark, 344
 Godwits, 175, 176, 179, 257, 285
 Goerz glass, 40, 366
 Golderest, 85, 86, 88, 181
 Goldfinch, 111, 112, 159
 Goshawk, 352
 Grebe, Eared, 257
 .. Great Crested, 173, 220, 232
 .. Little, 173, 311
 Greenfinch, 109, 110
 Guadaluquivir, 263, 274-276, 281, 282, 294, 320
 Guillemot, 187, 188-191, 197
 Gull, Black-headed, 172, 179, 232, 255, 337, 340
 .. Common, 179, 337, 344
 .. Herring-, 197, 198, 337
 .. Lesser Black-backed, 197, 198, 205, 337
 Gulls, 175, 187, 204, 202, 285, 336, 345
 Gun camera, 17, 68
 Gurney, Mr., 182, 208
 Gyrfalcon, 354

 Hague, The, 259
 Hammer, Yellow-, 118
 Hand camera, uselessness of, 12, 14
 Harrier, Montague's, in Norfolk, 208, 216
 in Spain, 293
 Harriers, 267, 326
 .. Hen-, 207, 216
 .. Marsh-, in Holland, 248, 250
 in Norfolk, 208, 216
 in Spain, 280, 293
 nest in Holland, 251
 Harvie-Brown, Mr., 14
 Hawfinch, 111
 Hawk, Sparrow-, 153
 Heligoland, 104, 107

 Heron, 52, 154, 155, 241, 242
 .. Buff-backed, 298, 307, 310
 .. Night-, 307, 310
 .. Purple, in Holland, 240, 241, 244, 246
 in Spain, 298, 306, 313
 photographing by electricity, 248
 young, 243
 .. Squacco, 307, 310
 Hirundines, 100
 Hobby, 326
 Holland, 225
 Horse, Spanish, 299
 Hoopoe, 303
 Hungary, 15
 Ibis, Glossy, 298, 307
 Imperial plates, 38
 Irby, Colonel, 327
 Ireland, 122, 254
 Isla Mayor, 292
 .. Menor, 324

 Jackdaw, 31, 59, 122, 123, 302, 368
 Jay, 121, 122
 Jutland, 332

 Kestrel, 150, 152, 153, 267, 272, 326, 359, 368
 .. at Gibraltar, 274
 .. release of, 153
 Kingfisher, 119, 139-142
 .. in Spain, 230
 Kingsley, Charles, 224
 Kite, Black, 283, 290
 .. Common, climbing to nest of, 286, 288
 in Denmark, 348
 in Lincolnshire, 225
 in Spain, 267, 282, 284, 286, 293, 296, 327
 nest of, 288, 290
 newspaper in nest of, 288, 289

Kite in Wales, 343
Kittiwake, 191-194
Knowledge, 104
Korea, 104

Lammergeyer, 12
Lapland, 15, 103, 182, 261
Lapwing, 26, 28, 31, 167, 168, 169, 170, 222, 296, 347
Lark, Crested, 334, 335
.. Sky-, 49, 52, 128, 333
Lens, tele-photo, 17, 36
Lilford, Lord, 14, 327
Limicole, 182
Lincolnshire, 30, 104
.. mud-flat, 174-185
Lisbon, 292, 327
London, 156, 170, 173

Madrid, 270
Magpie, 122, 257, 269, 270, 290, 354
Malaga, 294
Mallard, 275
Manchuria, 104
Martin, House-, 64, 102, 103, 115, 272
.. Sand-, 100, 292
Martins and Sparrows, 115
Meal-worms as bait for Nightingales and Robins, 32
Migration, 41-46, 103
Mongolia, 104
Mule, Spanish pack-, 294, 299

Nightingale, 19, 32, 53, 54, 74-81, 276
Nightingales and Meal-worms, 32
Nightjar, 54, 59, 89, 130-133, 159
Nightjars, young, 129
Norfolk, 174, 180, 182, 206, 225
.. Broads, 206-223
Northamptonshire, 222
Northumberland, 186
Nudd, Joshua, 216
Number of birds seen in Enfield, 48
Nuthacker, 354

Optimus camera, 37
.. lenses, 36
Oriole, Golden, 259, 260
Osprey, 276, 352
Outfit, photographic, 36-42
Owl, Barn-, 145, 146, 147, 250, 293, 302
.. .. in Holland, 259
.. .. in Spain, 293, 302
.. castings, 147, 149, 259
.. Little, 259, 303
.. Long-eared, 150, 213, 219
.. Scops-, 299
.. Short-eared, 149, 179, 180, 181, 208
.. .. ear, 213
.. .. nest, 217
.. Tawny, 147, 148, 152, 259
.. .. in Holland, 259

Oyster-catcher, 175, 202, 254, 262

Partridge, 65, 160, 161, 271
.. Red-legged, 65, 158, 271

Patagonia, 184

Petrel, 47

Pigeon, Wood-, 54, 156, 158, 159, 173

Pheasant, 162

Photographic outfit, 36-42

Photographing at Gibraltar, 274

.. Blackcap, 35
.. Blue Tit, 93
.. Chiff-chaff's nest, 369
.. Common Tern and Red-shank, 254
.. Cormorants, 204
.. Crested Lark, 335
.. Dabchick, 173
.. Dipper's nest, 366
.. Dunlin, 282
.. .. in marismas, 296
.. Eider, 201
.. Flamingoes, 322
.. Golderest's nest, 83
.. Herons, 155, 242

Photographing Kestrel's nest, 360
 .. Kingfisher, 141 ..
 .. Lapwing, 170
 .. Long-tailed Tit's nest, 95
 .. Marsh-harrier, 251
 .. nest of Montague's Harrier,
 216
 of Short-eared Owl,
 217
 .. nests and birds, 49
 .. Nightingales, 78
 .. Nightjar, 131
 .. Pheasant, 162
 .. Pintail's nest, 342
 .. Purple Herons, 241, 246,
 248
 .. Ringed Plover, 171
 .. Robins, 73, 74
 .. Sandpiper's nest, 359
 .. Sandwich Tern's nest, 200
 .. Snipe, 172
 .. Southern Herons, 308
 .. Spoonbills, 238, 244, 305
 in marismas, 304
 .. Stilt's nest, 318
 .. Swallow, 102
 .. Turtle-dove, 160
 .. up a ladder, 71
 .. up a tree, 70
 .. Vulture, 324
 .. Water-hen, 166
 .. Whinchats with gnm
 camera, 68
 .. Whitethroats, 82
 .. Wood-pigeon, 158
 Yellow Wagtail, 98
 young Spoonbills, 236

Photography, automatic, by electricity,
 24-35
 .. for naturalists, 9-23

Pinnacles, 187

Pintail, 337, 341, 342

Pipit, Meadow-, 65, 98, 223
 .. Rock-, 205 ..

Pipit, Tree-, 99

Plates, dry, 38

Plover, Grey, 15, 293
 .. Golden, 52, 167
 .. Kentish, 336
 .. Killdeer, 183
 .. Lesser Golden, 183
 .. Ringed, 170, 171, 205, 284, 336,
 345
 .. Stone- or Norfolk, 311

Pochard, 222

Pole-trap, 148, 149

Pratincole, 293, 296, 316

Puffin, 187, 194-196

Pyrenees, 269, 271

Quant, 212

Rabbit as bait for Hooded Crows, 31

Raven in Denmark, 347, 354
 .. in Enfield, 127
 .. in Spain, 313

Redbreast and meal-worm, 32
 .. Robin, 32, 64, 72, 73, 76, 159

Redpole, Lesser, 116

Redshank, Denmark, 336, 338, 341
 .. Enfield, 171
 .. Holland, 254, 261
 .. Lincolnshire, 175
 .. Norfolk, 222
 .. Spain, 284, 289, 293, 296, 317

Redstart, 71

Redwing, 52, 61

Richmond Park, 154, 173, 220

Roller, 302, 303

Rook, 76, 124-127, 179

Rudolph, Prince, 14, 327

Ruff, Reeve, 262, 340, 344

St. James's Park, 173

San Luear de Barrameda, 281

Sand-grouse, Pallas's, 181

Sandpiper, Bartram's, 183
 Bonaparte's, 183

Sandpiper, Buff-breasted, 183
.. Common, 359, 366
.. Green, 171, 280
.. Pectoral, 183
.. Solitary, 183
.. Spotted, 183
Saunders, Howard, 86, 104, 132, 184, 290,
327
Scandinavia, 174, 182, 218
Scoter, 337
Scotland, 181
Sea-birds at the Farne Islands, 186-205
Searching for nests, Bearded Tits', 212
Seeböhm, Mr., 14, 15, 107, 307, 317,
331
Seville, 282, 292, 293
Sewage-farm, 170
Sheldrake, Ruddy, 181
Shoveller, 208, 219, 222
Shrike, Great Grey, 182
.. Red-backed, 99, 100
.. Woodchat, 278
Siberia, 14, 104, 174, 182
Snipe, 51, 171, 172
.. Red-breasted, 183
Southwell, Mr., 182
Spain, 15, 108, 122, 128, 236
Spanish marismas, 184
.. .. bird life in, 265-330
Sparrow, Hedge-, 65, 91, 105
.. House-, 112, 113, 114, 115
.. Tree-, 116
Sparrow-hawk, 153
Spoonbill, 25
.. feeding young, 246
.. in Holland, 226, 232, 240, 244-
246
.. in Norfolk, 207, 208
.. nesting in Spain, 304-306
.. photographing by electricity in
Holland, 244
Staple Island, 183
Starling, 107, 119-121, 292, 334, 368
.. Sardinian, 299
Stevenson, Mr., 182
Stilt, 296, 317-319
.. measurements, 319
Stint, American, 183
.. Little, 15, 179
Stock-dove, 160
Stonechat, 65
Stork, Black, 348-351
.. White, in Denmark, 333
.. .. in forest, 313
.. .. in Lisbon, 327
.. .. in marisma, 293
.. .. in Seville, 293
.. .. on Guadalquivir, 292
.. .. in Holland, 257, 258
Suburban parish, bird life in, 43-173
Swallow, 64, 76, 102, 103, 231, 272
Swan, Wild, 346
Sweden, 122
Swift, 120

Tagus, 327
Tangiers, 294
Teal, 51, 156, 222
Tele-photo lens, 17, 36, 37
Tennyson, 76
Tern, Arctic, at Farne Islands, 198, 199,
200
.. .. in Denmark, 337, 345
.. Black, in Norfolk, 207
.. .. in Holland, 231, 252, 254
.. .. in Spain, 296, 319
.. .. young, 255
.. Caspian, 320
.. Common, at Farnes, 198
.. .. in Holland, 253, 254
.. Gull-billed, 320
.. Lesser, 198, 262, 337
.. Roseate, 198
.. Sandwich, at Farnes, 198, 199, 200
.. .. in Denmark, 337, 340
.. Whiskered, 293, 296, 319
Terns, 187, 203, 285, 336, 338, 345

Texel, 254
 Thrush, Missel-, 54, 56
 .. Song-, 49, 56, 61, 122
 Thuringia Wald, 126
 Tit, Blue, 92, 93
 in Spain, 230
 .. Bearded, 208, 210, 216, 257
 .. Coal-, 92
 .. Crested, 230
 .. Great, 92, 93, 363
 .. Long-tailed, 92, 93, 94, 95
 .. Marsh-, 92, 93
 Titmice, 91, 276
 Turkestan, 104
 Turtle-dove, 28, 53, 159, 160

 Uganda, 11

 Valencia, 266
 Vole plague, 180, 181
 Voles and Rooks, 126, 127
 Vulture, Egyptian, 267, 275, 324
 .. Griffon, 324
 Vultures, 15, 265, 324

 Wading, 40, 212, 236, 242, 263, 339
 Wagtail, Blue-headed, 338
 .. Grey, 366
 .. Pied, 96, 98
 .. Yellow, 98, 223
 Waiting at nests, 21
 Wales, 348
 Wanstead Park, 154
 Warbler, Garden-, 35
 .. Grasshopper-, 90, 210, 257

 Warbler, Great Reed-, 231, 295, 311
 .. Icterine, 260
 .. Radde's Bush-, 104
 .. Reed-, 90, 212, 222, 311
 .. Savi's, 207
 .. Sedge-, 53, 90, 223, 224
 Warwick plates, 38
 Wash, 175
 Water-hen, 33, 53, 124, 153, 164, 165,
 166, 173, 222, 256
 Water-rail, 222
 Wheatear, Desert-, 104
 Whinchat, 19, 33, 67, 68, 82, 223
 Whitethroat, Greater, 19, 81, 82
 .. Lesser, 84, 85
 Wilson, Mr. W., 126
 Winchmore Hill, 163
 Wolley, 15
 Woodcock, 179
 Woodpecker, Green, 134-138
 tongue of, 136
 .. Lesser Spotted, 138
 .. Spanish Green, 302
 Woodpeckers, 95, 136, 138
 Wren, 96, 159
 .. Willow-, 82, 89
 .. Wood-, 89, 360
 Wryneck, 133, 293

 Yellowshank, 183
 Yorkshire, 80

Zoologist, 36, 106, 120, 126, 123, 149,
 170, 206, 289
 Zuyder Zee, 260

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